Towards a non-uniform analysis of naturally reflexive verbs

naturally reflexive verbs, middle Voice, unergative, unaccusative, transitive

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1. Naturally reflexive verbs ((NRVs) e.g. wash, Kemmer 1993) involve two 0-roles but often only have one overt DP. After revisiting their properties in English, German, and Greek, we propose a non-uniform syntactic analysis of NRVs (Takehisa 2003, Dechaine & Wiltschko 2011; cf. Reinhart & Siloni 2004): NRVs have an unergative syntax in English, a transitive one in German, and an unaccusative one in Greek. This corresponds to the morphology found with NRVs in these languages: zero, reflexive pronoun, and verbal inflection, respectively.

2. Three views on the syntax of NRVs:
   i) NRVs are transitive; even in English they select a null reflexive (Safir 2004, Bergeton & Pancheva 2012).
   ii) NRVs are unaccusatives (Marantz 1984, McGinnis 1998, Embick 2004).
   iii) NRVs are unergatives (Reinhart & Siloni 2004).

3. (i) to (iii) apply to different languages. (iii) is the correct analysis for English (Reinhart & Siloni 2004). NRVs can build er-nominals, impossible with unaccusatives:

   (1)   a. She is an experienced runner.
        b. *She is an experienced mover.
        c. She is an elegant dresser.

Tests such as out-prefixation (Bresnan 1982, Kratzer 2005) suggest the absence of an internal argument. This is possible with non-core transitives (and unergatives), but not with core transitives, (see Levin (1999), Rappaport Hovav & Levin (RH&L) 2001) as (in non-habitual contexts) core transitives must project their internal argument in the syntax. (4), an NRV, behaves like (2), in both its reflexive and disjoint readings:

   (2)     John out-ran/out-ate Mary.
   (3)     *John out-broke Mary.
   (4)   a. John out-washed his sister.
        b. *John out-washed his clothes his sister.  (Sells et al. 1987)
        b'.  *John out-washed himself his sister.

   (i) is appropriate for German: NRVs involve a subject-bound anaphor in object position. As has been shown, sich behaves like an ordinary object pronoun with respect to word order (Sells et al. 1987, Fagan 1992, Steinbach 2002), and it carries object-case (Fanselow 1991). The two 0-roles can be focused independently suggesting that sich is semantically an argument:

   (5)     Morgens wäscht sie sich immer/erst mal selber.
           at.morning washes she REF'L always/first-of-all self
   (i) agent focus: She washes herself, no-one else washes her.
   (ii) theme focus: She washes herself, she washes no-one else.

   (ii) is appropriate for Greek: Greek marks NRVs with the same non-active (NA) morphology as passives or uncontroversial unaccusatives (O Janis plithike 'John washed non-active-3sg') (Tsimpli 1989, Embick 1998, Alexiadou & Anagnostopoulou 2004 a.o.). Furthermore, several core transitives allow a reflexive interpretation if they combine with NA and a single animate DP (e.g. klinome ‘close myself’, anigome ‘open myself’; Alexiadou & Anagnostopoulou 2004). As core transitives must project an internal argument in syntax, the DP in such reflexives must be an object.

4. Interpretation of NRVs: English NRVs are like non-core transitives such as eat. Following RH&L (2001), such predicates involve roots associated with two participants, as eating and washing events
involve two participants conceptually. However, since these predicates have a simple event structure, only the agent argument must be projected syntactically, i.e. these verbs can surface as unergatives. At the C-1 level, however, they are interpreted as transitive, and their 'missing object' is understood as referring to the most-prototypical ("natural") one for each class: an amount of food in the case of eat, and a referent identical to the agent with NRVs like wash.

In contrast, German NRVs have a transitive syntax involving anaphoric object-binding.

Greek NRVs have an unaccusative syntax exactly like passives: they involve a Voice-head with no overt external argument, hence the presence of NA (Embick 2004, Alexiadou, Anagnostopoulou & Schäfer 2006). We propose that Greek passives and reflexives involve 'middle-Voice' (Alexiadou & Doron 2012). As passives in other languages, 'middle-Voice' introduces an implicit agent. However, unlike 'passive-Voice' it does not force a disjoint reference effect between its implicit agent and the object but leaves this aspect of interpretation open until the C-1 interface.

NRVs under 'middle-Voice' (6) conceptually favor coreference between their arguments (reflexive interpretation), while non-naturally reflexives (7) trigger a disjoint/passive interpretation. However, these conceptual baselines can be overridden:

a) if a by-phrase is present, disjointness is forced even with NRVs (passive interpretation).

b) non-naturally reflexives get a reflexive interpretation in the presence of the incorporated adverb afto- (Tsimpli 1989, Embick 2004). This actor-oriented intensifier is possible only in languages with underspecified/middle Voice (Gast & Siemund 2006) and stresses coreference between agent and theme.

(6) O Janis plithike (apo ti Maria).
    John washed-NA (by Maria)

(7) O Janis (afto-)eksoristike.
    the John self-exile.NA

'John washed/John was washed by Mary'

‘John was exiled/exiled himself' (word count: 747)

Selected references


Gast, V. & P. Siemund 2006. Rethinking the relationip between SELF-intensifiers and reflexives. Linguistics 44.2: 343-381.


Edgy nominalizations
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This paper examines the elements, structure and formation process of derived categories, by analyzing the properties of nouns derived from adjectives in Spanish. We discuss the structure underlying them and argue that, although it is commonly assumed that deadjectival nouns denote qualities (*wisdom*) or states (*sadness*), there is a group of deadjectival nominalizations that can refer to “instantiations” or “occurrences” of events (Beauseroy 2009), such as *imprudence* or *cruelty*. As shown by classical tests on nominal eventivity (Godard & Jayez 1994), these occurrential deadjectival nouns (ODNs) (1c) behave like deverbal (1a) and simple-eventive nominals (1b), contrasting with state (1d) and quality-nominals (1e). For instance, they can appear as complements of “take place” and behave as count nouns being able to pluralize.

(1)  
   a. Juan hizo dos operaciones/ llevó a cabo dos discusiones.  
      Juan made two operations/ conducted two discussions 
   b. Juan hizo dos fiestas.  
      Juan made two parties 
   c. Juan cometió dos imprudencias/ varias crueldades.  
      Juan carried out two imprudencies/ several cruelties 
   d. *Juan cometió dos tristezas/ varias perplejidades. 
      Juan carried out two sadnesses/ several perplexities 
   e. *Juan cometió varias bellezas/ sabidurías.  
      Juan carried out several beauties/ wisdoms

We argue that such ODNs are possible only when coming from evaluative adjectives (*cruel, imprudent*) due to the fact that such adjectives are predicated of an event in addition to an individual (Stowell 1991).

(2) Juan fue cruel con Inés  
    Juan was cruel with Inés 
(3) Insultar a Inés fue cruel por parte de Juan  
    to insult to Inés was cruel by part of Juan 

(4) PredP [DPSubject [Event [ Pred [ A

We defend that the observed eventivity properties come from functional syntactic structure, which makes these deadjectival nominalizations different from simple eventive nominals, where the reference to an event is conceptual. Such a syntactic event structure is tested by the capacity of these nominalizations to license purpose clauses, which is usually taken as a test of structural eventivity (Borer 2012), since they must be controlled by an event argument.

(5)  
   a. Las discusiones para solucionar el problema.
the discussions to solve the problem
b. *Las fiestas para sorprender a Inés.
the parties to surprise (to) Inés
c. Las travesuras de Juan para sorprender a Inés.
the devilries of Juan to surprise (to) Inés

At the same time, we argue that the eventive structure is more defective than the one of verbs’ (which includes aspectual projections taking the root), as deadjectival nominalizations are not compatible with aspectual modifiers of the kind of for/in-adverbials. This makes these deadjectival nominalizations lie between deverbal and simple-eventive ones (which arguably consist of a root and a nominalizer).

(6) a. la discusión de los problemas durante/ *en una hora.
the discussion of the problems for/ in an hour
b. la construcción del puente en seis meses.
the construction of the bridge in six months
c. *la fiesta durante/ en una hora.
the party for/ in an hour
d. *la imprudencia/ crueldad de Juan durante una hora.
the imprudence/ cruelty of Juan for an hour

Nouns such as crueldad ‘cruelty’ and imprudencia ‘imprudence’ not only have an occurrential meaning; they also give grammatical results in contexts proper of quality nouns: una persona de una gran crueldad/ imprudencia ‘a person of a great cruelty/ imprudence’. Yet, it is not the case that all ODNs allow for a quality reading; some (travesura ‘devilry’, fanfarronada ‘boast’) only have an occurrential reading: *una persona de una gran travesura/ fanfarronada ‘a person of a great devilry/ boast’.

Likewise, although all ODNs derive from evaluative adjectives, not all nouns built on evaluative adjectives have an occurrential realization. Certain nouns, such as amabilidad ‘kindness’ or cautela ‘caution’ have a quality (una persona de una gran amabilidad/ cautela ‘a person of a great kindness/ caution’) but not an occurrential reading (*Hizo dos amabilidades/ cautelas ‘(S/he) made two kindnesses/ cautions’).

These descriptions shed an important finding: all deadjectival nominals denoting instantiations of events come from evaluative adjectives, arguably due to the presence of an event in the structure. Some of these adjectives are ambiguous and can optionally have this event and give rise to ODNs or to Quality-nouns (cruel, cruelty), which is expected under Arche’s (2006) idea that evaluative adjectives can have either an eventive (4) or a dispositional structure (7). Others lack the Q-reading, which suggest that the base structure in (7) is not an option for them. Finally, the third group remains unexplained as gaps in the universe of possible derivations for the moment.

(7) PredP [Subject [Pred [ A

747 words
Deriving target and resultant states
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It has been noted in the literature that stative passives do not form a homogenous class (Nedjalkov and Comrie, 1988; Kratzer, 2000): two subclasses, target state passives (TSPs) and resultant state passives (RSPs), can be identified by their different behavior with respect to the adverbial ‘still’ (1). TSPs (1a) describe states that are in principle reversible, thus satisfying the presuppositional requirement of ‘still’; RSPs (1b) convey that an event of the kind described by the participle is over by the reference time, and are therefore incompatible with ‘still’ (Parsons, 1990; Kratzer, 2000).

(1)  
   a. The door is (still) closed.
   b. The lawn is (still) mowed.

To capture these two types of stative passives, Kratzer posits a semantic type difference between the verbal expressions in (1a)-(1b) and two distinct stativizing operators: one for TSPs, one for RSPs. However, this dual approach is not only theoretically undesirable, but empirically dubious, since TSPs and RSPs are not known to be morphologically distinguished in any language (Nedjalkov and Comrie, 1988).

The present paper draws on recent work in degree semantics to derive the observed contrast between TSPs and RSPs in a unified way. The role of scales (ordered sets of degrees) in the adjectival domain is well-known (see Kennedy 1999 for an overview), and I argue that stativization is, unsurprisingly, also sensitive to scalar structure. Stativization targets verbal expressions describing scalar changes (Levin and Rappaport-Hovav, 2005), and the interpretation of a derived stative reflects the type of scale associated with the verbal expression: Specifically, TSPs result from stativizing verbal expressions denoting change along a property scale, RSPs from verbal expressions denoting a quantity scale. The semantic core of a scalar change verbal expression is a Measure of Change function (Kennedy and Levin, 2008) (2), where \( m \) may correspond to a lexically encoded property scale (e.g. \textsc{closed}) or a quantity scale associated with the mereological properties of an incremental theme (e.g. \textsc{quant(the-car)}). In the first case, (2) returns the amount of change in the property of \textit{closed-ness} as a result of participating in the event. In the second, (2) returns the amount of change in the part structure of the car as a result of participating in the event.

\[
(2) \quad [M_{\Delta}] = \lambda d \lambda x \lambda e. M^T_{\text{init}(e)}(x) \text{fin}(e) = d
\]

I then posit a single stativizing operator (3) which targets gradable event descriptions like (2) and existentially quantifies over the event argument.

\[
(3) \quad [-ed] = \lambda P \in D_{M_{\Delta}} \lambda d \lambda x \exists e. P(e)(x) = d
\]

The acceptability pattern with ‘still’ falls out naturally from this approach. Like gradable adjectives with closed scales, without overt degree morphology the degree argument of a stative passive receives the maximum value by default (see Kennedy and Levin 2008 for details). Thus, in (4-a) every subpart of the car is understood to have undergone a washing event; at no time in the future will this maximal value change, since no subpart of the car can un-participate in the event. This explains the infelicity with ‘still’ (4-b), which presupposes that the state that holds at the time of utterance may cease to hold at some future time. Further evidence comes from (4-c), where the modifier ‘half’ explicitly values the degree to the midpoint of the quantity scale. In this case, since the remaining subparts of the car may subsequently participate in the washing event, ‘still’ is acceptable.

(4)  
   a. The car is washed.
   b. ?The car is still washed.
   c. The car is still half washed.

Compare the acceptability pattern observed with ‘wash’ with that of a verb like ‘open’, ‘close’, or ‘melt’—i.e. verbs which lexicalize a property scale. In (1a), the measure of change function measures the degree of change in that property (i.e. closed-ness) in an individual which results from participating in an event. Thus the crucial difference: although no subpart of a fully washed car can un-participate in the event (yielding the permanent nature of resultant states), nothing prevents subsequent changes in the value of a property holding of an individual. The maximal degree of closed-ness holding of a door as a result of an event can always subsequently change, e.g. if someone later re-opens it. Since lexical properties associated with verbs like ‘closed’ are typically reversible, TSPs are correctly predicted to be felicitous with ‘still’.

Rescue by PF Deletion and the Intervention vs. Truncation Debate

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**Keywords:** Left periphery, intervention effects, ellipsis

Adverbial clauses resist so-called ‘Main Clause phenomena’ (MCP) such as Topicalization (1b). Hooper & Thompson’s (H&T) (1973) early account of this restriction is couched in semantic/pragmatic terms. However, they also state that MCP are banned from ‘reduced’ clauses, an assertion that might suggest that the restricted distribution of MCP is at least partly syntactic. This line of inquiry has, in fact, been pursued in recent years, giving rise to two competing types of analyses. The first one, often referred to as ‘truncation’, assumes that adverbial clauses display a reduced left periphery (1a). While specific implementations differ, the consensus is that in ‘reduced clauses’, Rizzi’s (1997) FocP and the ‘high’ TopP are unavailable, hence the lack of argument fronting in English (1b), whereas the ‘low’ TopP remains available to host CLLD in languages like French (1c).

\[(1)\]

\[
\begin{align*}
&\text{a. ForceP} \quad \text{(TopP)} \quad \text{(FocP)} \quad \text{TopP} \quad \text{FinP} \\
&\text{b. *When [this song] I heard,. . .} \\
&\text{c. Quand [cette chanson] je l’ai entendue,. . .} \\
&\quad \text{when this song I it-have heard}
\end{align*}
\]

The second type of approach, on the other hand, attributes the cause of the ungrammaticality of (1b) to a so-called intervention effect. Haegeman (2006) argues that adverbial clauses are derived by wh-movement of an operator. Assuming this type of derivation, the unavailability of argument fronting in English (1b) can now be seen as having the same underlying causes as the unavailability of argument fronting in indirect questions (2a), namely, topicalized phrases act as interveners w.r.t. wh-movement. As expected, the availability of CLLD in (1c) turns out to be parallel to that in (2b).

\[(2)\]

\[
\begin{align*}
&\text{a. *I wonder when [this song] I heard.} \\
&\text{b. Je me demande quand [cette chanson] je l’ai entendue.}
\end{align*}
\]

From a theoretical perspective, the movement + intervention approach is simpler in that it does not carry the burden of having to specify which clause types have an impoverished left periphery. Instead, constituents such as the fronted object in (1b) and (2a) cannot be present if wh-movement is to proceed. Thus, in adverbial clauses it may appear as if TopP and FocP are not projected, but one can, in fact, assume that these projections can be present so long as they do not host in their specifiers interveners for movement. (TopP can, of course, host CLLD, as it has been shown that CLLD does not give rise to intervention (Rizzi 2004)).

Our goal, in this paper, is to present a further argument for the movement + intervention approach and against the truncation approach, one based on an examination of some asymmetries between VP ellipsis (VPE) and VP topicalization (VPT). We first follow Johnson (2001) in assuming a movement derivation of VPE: the to-be-elided VP moves to the left periphery, by way of VPT, and both of the members of the chain created by Move fail to be spelled out at PF. His account captures the striking parallelisms between contexts allowing VPE and those allowing VPT and is shown in Authier (2011) to correctly predict the distribution of the kind of TP ellipsis that occurs in contexts of so-called French modal ellipsis. Aelbrecht & Haegeman (2012) (A&H) do challenge Johnson’s conclusions on the
basis of the fact that while VPE is freely available in adverbial clauses, VPT is as restricted as other MCP in the same context (3). (And the same is true of French TPE vs. TPT - cf. (4).)

(3)  
  a. When [move to London] Mary did [move to London], her life changed entirely.  
  b. *When [move to London] Mary did [move to London], ...  

(4)  
     when to-play tennis I want play tennis  
  b. *Quand [PRO jouer au tennis] je veux [PRO jouer au tennis], ...  

However, A&H’s conclusion is not inevitable. As shown by Authier (2011), who adopts Bošković’s (2011) implementation of ‘rescue by PF deletion,’ the asymmetry between VPE and VPT in adverbial clauses follows if one assumes that the fronted VP/TP is an intervener that causes the derivation to crash at PF (cf. (3b) and (4b)), unless it is removed by ellipsis, in which case the derivation is ‘repaired’ and allowed to converge as in (3a) and (4a) (see also Saito (2001), (2007)).

Thus, an Authier/ Bošković-style account of the asymmetry between VPE and VPT just mentioned rests on the assumption that a fronted VP is an intervener for wh-movement in adverbial clauses. But this, in turn, entails two things: (i) adverbial clauses must be derived by movement, and (ii) the landing site for VPT must be available. In other words, if the Authier/ Bošković line of reasoning is correct, the truncation account of adverbial clauses cannot be maintained.

Selected references


Thus, it is shown that capturing the semantic contrast between TSPs and RSPs does not require positing a difference in the underlying semantic type of the verbs, nor two different stativizing operators to derive the resultant state and target state meanings. Instead, these meaning differences can be shown to fall out naturally from properties associated with different dimensions of scalar change.

References

The implications of managing
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An implicative verb asserts the truth of its sentential complement and also commits the speaker to an additional proposition via conventional implicature. Manage is a well known example. As observed since Karttunen (1971), while (1-a) entails (1-c) but (1-b) does not, both commit the speaker to (1-d) and imply (1-e).

(1) a. John managed to build a house.
   b. John didn’t manage to build a house.
   c. John built a house.
   d. John tried to build a house.
   e. Building a house was difficult (for John).

From such examples, manage has been claimed to conventionally implicate trying (Karttunen, 1971; Stephenson, 2010), as well as difficulty (Karttunen and Peters, 1979; Bhatt, 1998). However, this informal characterization is descriptively problematic: The examples in (2) show that manage need not imply either. Manage can be used felicitously to describe events where no attempt or effort is made by the subject (2-a-b), and is even compatible with inanimate subjects (2-c). (2-d) shows that the so-called difficulty implication is cancelable, ruling out conventional implicature. (Data are naturally occurring.)

(2) a. Upon returning to my car, I discovered that I had managed to lose my keys.
   (http://www.waramps.ca/about/words-kt.html)
   b. I was in bad shape that night, but fortunately, I didn’t manage to lose my keys.
   (http://www.waramps.ca/keytags/testimonials.html)
   c. Those movies always manage to make me feel terrible about my love life.
   (http://collegecandy.com/2008/08/19/disney-princesses-edited-up-my-love-life/)
   d. I managed to make my way through customs. It was pretty easy actually.
   (http://www.crazyorgenius.com/articles/2005/08/28/the-new-jersey-adventure-part-1/)

This paper proposes a more precise characterization of this implicational pattern.

Taking the semantic argument of manage as an eventuality description $P$, we suggest that manage (a) asserts the occurrence of an eventuality $e_s$ (the “necessitator”) which is causally sufficient for the culmination of $P$, and (b) conventionally implicates the occurrence of an eventuality $e_c$ (the “catalyst”) which is causally necessary, but not sufficient, for the culmination of $P$. Causal necessity is standardly formulated counterfactually (Lewis 1979). An eventuality $e$ is a necessary cause of an eventuality $e_1$ when $e_1$ would not occur unless $e$ would. Causal sufficiency is modeled in terms of metaphysical necessity: $e$ is a sufficient cause of $e_1$ when the occurrence of $e$ metaphysically necessitates $e_1$.

We argue that the observed implicational pattern falls out naturally from this analysis of manage. Manage implies try when $P$ is volitional, as in (1-a) and (2-d). In (2-a), the catalyst is an internal mental state of the speaker; in (2-c), it is properties of the relevant movies. The so-called difficulty implication arises from contextual information and conversational reasoning. An utterance of manage entails the existence of preconditions for $e_s$ (i.e. $e_c \neq e_s$), and, by mentioning these conditions, conversationally implies that they are not trivial. In contexts where $e_c$ and $e_s$ are parts of a single eventuality involving force dynamics, difficulty is inferred.

(3) She managed to break the lock with using a small wire.

Other contexts rule out that $e_c$ and $e_s$ are parts of the same eventuality, and the hearer must reconstruct from context the necessary preconditions for the culmination of $P$. In (4), $e_c$ must be an external circumstance that facilitates John’s prolonged sleep.

(4) I managed to sleep for 10 hours.
   (https://twitter.com/danparsons/statuses/163753658461323265)

Contexts which presupposes that $e_c = e_s$, contrary to the speaker’s assertion, lead to oddity, as in (5). Normally, pressing the button is the necessary and sufficient condition for opening an automatic door, so (5) is infelicitous in the absence of additional information.

(5)
(5) [John presses the button on an automatic door.] # John managed to open the door.

The same utterance is unproblematic in (6). The difference here is the salience of an $e_e$ distinct from pressing the button—namely, finding the button.

(6) [Ignorant of the hidden button, many have tried and failed to open the automatic door. Finally, a child inadvertently finds and presses the button.]

After centuries, a child managed to open the door.

We conclude that the conventionally implicated meaning associated with manage has not been sufficiently addressed in the literature. Teasing apart the role of truth conditional meaning, non-truth conditional meaning, contextual information and pragmatic reasoning, leads to a more precise and empirically adequate characterization of the implicative behavior of manage.

References


Title: *hii* at the Semantics-Pragmatics Interface

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Abstract: Though the Hindi discourse particle *hii* is frequently assumed to be non-scalar and roughly equivalent in meaning to *only*, (Verma 1971, Sharma 1999, Montaut 2004), I present new data to show that it has both an exclusive requirement and a scalar requirement on the discourse context. To account for these felicity conditions, I motivate a presuppositional account for the meaning contribution of *hii*. Then, using *hii*-marked proper names, I show how this analysis explains two puzzles presented by Bhatt (1994). First, *sirf* ('only') and *hii* can acceptably associate with the same constituent, and this gives rise to a nearly equivalent reading to just using *sirf* alone. Second, when *hii* is in the scope of negation, many speakers surprisingly get an 'even' reading of *hii*. The analysis that I present in this talk provides the first formal account for the meaning of *hii*, and shows how its semantics is a unique combination of the effects of the well-studied 'only' and 'even' in English.
Mafioso Parameters and the Limits of Syntactic Variation

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We build on recent work proposing non-UG-specified, emergent parameter hierarchies, and argue that a system of this kind not only addresses objections levelled against earlier formulations of parameters ([1], [2], [3]), but also potentially offers a suitably restrictive theory of the nature and limits of syntactic variation. Our focus is one aspect of the proposed parametric hierarchies, the so-called Mafioso Effect by which certain parametric options are simply ‘irresistible’.

Under this approach, many former principles of UG can be rethought as Mafioso parameters. Take, for example, Kayne’s (1994) Linear Correspondence Axiom (LCA). While the numerous left-right asymmetries of natural language (Greenberg’s Universal 20, the ban on rightwards wh-movement, the Final-over-Final Constraint) are manifest, the correct explanation for them remains controversial. One oft raised objection to LCA-based explanations is that there is no deep reason why asymmetric c-command should map to precedence rather than subsequence. On the Mafioso approach, the LCA is simply a linearization parameter, with the subsequence/precedence option set in acquisition. The kinds of processing pressures discussed by [4] and others nonetheless make the precedence setting universally preferred. These kinds of Mafioso effects thus offer a conceptually attractive way of decluttering UG and accommodating third factors pressures without the need to ‘biologise’ them (cf. [5] for discussion).

Following [6], we assume acquisition to entail i.a. the determination of which features are grammaticalised (i.e. participate in Probe/Goal relations) in a given language, and how these formal features interact with movement diacritics. The ‘sequence’ in which these facts are established is guided by restricted UG-specified elements (e.g. the availability of a [uF]/[iF] distinction, a movement diacritic, and the operations Merge and Agree) and third-factor-imposed acquisition strategies, including a version of Feature Economy/FE and Input Generalization/IG (cf. [7], [8]). By the former, acquirers posit as few formal features as possible; by the latter, they assume the minimum number of distinct elements/operations compatible with the PLD, maximally generalising patterns in the input.

Mafioso effects can also apply to lower-level parameters. We show how this holds for the negation hierarchy in (1), the V-movement hierarchy in (2), and the alignment hierarchy in (3).

(1)

Here, partial Negative-Concord/NC systems are ruled out on PLD grounds as there is no unambiguous input leading to the postulation of this system-type and credible third-factor motivations (FE, IG, and the more general biases discussed in [9]) also work against it.
Here, we show that the $Y$ and $N$ options under $v/Aux$-to-$T$ lead to indistinguishable entities, since the only surface difference between TMA particles – first-merged in the T-field - and auxiliaries – first-merged in $v$ – is inflection.

Our final example is the apparent non-existence of syntactically ergative split-S languages.

(3) Basic morphological ergativity parameter: Does transitive $v$ assign theta-related ERG to its specifier in L?

(3) is based on a variant of the approaches to ergativity in [10] and [11] whereby syntactic ergativity results where a $v$ assigning theta-related ERG Case to its specifier also bears $^\uparrow$, triggering object movement past the subject. While unergative $v$ can freely assign ERG (yielding a morphologically ergative split-S system), $v$ cannot bear $^\uparrow$ in such languages because, with unergatives there is no XP available to satisfy $^\uparrow$. We propose that this ‘Mafioso effect’ actually constrains the possible ordering of parameters in the emergent hierarchy.

As such, “emergent” parameter hierarchies are restricted by a range of first-, second- and third-factor considerations and also by the operations employed by $C_{HL}$. In short, there will be many parametric “offers that cannot be refused”.

2
References


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Associative plurals, Classifier language, South Asian language, Bangla

In the typological and formal studies of number marking and classifiers (Chierchia 1998, Borer 2005 a.o.) associative plurals (henceforth AP) have received relatively little attention (but see Li 1999, Kurafuji 2003, Nakanishi & Tomioka 2004, Ueda & Haraguchi 2008). I compare APs in Bangla (a South Asian classifier language) to Chinese and Japanese. I make two observations - (i) Bangla APs, like Japanese APs, can have an indefinite interpretation, while Chinese APs are always definite, (ii) Bangla APs can be arguments to generic/kind predicates, while neither Chinese nor Japanese allows kind-referring APs. Thus, Chinese has the most restricted distribution of APs among these three languages, whereas Bangla is the least restrictive. For a unified account of APs in these languages, I propose that APs belong to a different syntactic category than the regular (additive) plurals and are projected between DP and NumP. My proposal helps understanding the cross-linguistic diversity in distribution and the relative scale of interpretation for APs.

The Facts. In presence of a numeral and its accompanying classifier, the APs in all three languages front (optional in Japanese due to floating quantifier); Chinese allows only proper nouns and pronouns in such constructions. Second, the Chinese APs with common nouns (1c) are obligatorily definite (Iljic 1994, Li 1999), while Japanese allows both definite and indefinite readings (Kurafuji 2003, Nakanishi & Tomioka 2004). Bangla APs with common nouns are never definite (1a). For example, APs in Chinese can’t appear in existential constructions (2c), while Bangla and Japanese APs are allowed there (2a-b).

(1) a. chatro-ra (tinjon),
    student-RA 3-cla
    ‘Students’,
    ‘As of students, 3 of them’,

b. gakusei-tati (san-nin),
    student-TATI (3-cla)
    ‘(The) Students’
    ‘3 students’,

c. xuesheng-men (*san-ge),
    student-MEN (3-cla)
    ‘The Students’

(2) a. park-e
    park-loc
    ‘There are children in the park.’

b. kooen-ni
    park-loc
    ‘There are children in the park.’
The similarity between Bangla and Japanese APs is also apparent as they never appear as predicative NPs, take wide scope with respect to negation and intensional predicates, and their existential import survives in questions and conditionals.

APs in the three languages differ with respect to their availability as arguments to generic or kind predicates. Japanese and Chinese do not allow APs to be predicated of generic/kind sentences, whereas Bangla APs involving human count nouns allow kind readings, as in (3a-c).

(3) a. italiyo-*ra \{haSikhuSi / Dinar-e pizza khay\} [Bangla]
   Italian-*RA cheerful at-dinner pizza eat

b. yidali(*men) ren \{kuailie / wancan chi pisa\} [Chinese]
   Italian(*MEN) people cheerful dinner eat pizza

c. itariajin(*-tati)-wa youki desu [Japanese]
   Italian(*-TATI)-top cheerful be

   ‘Italians are cheerful.’
   ‘Italians eat pizza in dinner.’

The Proposal. I propose that the AP marker (*ra, men, tati) heads a functional projection (FP) between DP and NumP. Common nouns are required to move to FP for checking the human animate feature. Bangla allows only NP-movement, not N0-movement (Bhattacharya 1999). Therefore, the NP moves to the spec of FP, while in Chinese and Japanese it is the N0 that moves to F0. The obligatory definite interpretation of common noun in Chinese arises because men is obligatorily realized on D0, as proposed in Li (1999), it moves from F0 to D0 in my account. The pronouns and proper nouns are in D0 (following Longobardi 1994). Optional definiteness of the common nouns in Japanese depends on the optional projection of D0. In case of indefinite interpretation, an existential closure applies when there is no D0. The *-ra does not require the D0 to be projected and an existential closure applies here as well. Nakanishi & Tomioka (2004) proposes *-tati as a non-uniform pluralizer which takes either an individual-denoting predicate (proper names, pronouns) or a property-denoting predicate (common nouns) as arguments. I propose that Bangla *-ra is, in fact, a uniform pluralizer. It takes an individuated predicate and returns a predicate of plural individuals that represents the focal property of the characterizing predicate with cardinality more than 1. Unlike Japanese and Chinese, this uniform pluralizer allows CN-*ra in Bangla to be subject of generic and kind-predicates.

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Constructing Argument Expressions: A Blackfoot Case Study
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Background
At the interface of structure-building and spell-out, the question arises as to how argument expressions (i.e., DPs) can dually satisfy both thematic and grammatical requirements. A relatively standard approach is to assume that DPs are merged in theta positions and are either assigned Case in-situ or undergo internal Merge to Case positions (Chomsky 2001). So-called “non-configurational” languages offer a challenge to this approach, as the correspondence between structural positions and grammatical functions is less transparent. A popular solution is the Pronominal Argument Hypothesis, which situates DPs in adjunct positions, coreferential with affixal or null pronouns that occupy theta/Case positions (Jelinek 1984; Baker 1991). This paper offers an alternative solution for non-configurational languages, namely that DPs can be constructed via external Merge of two independent constituents that fulfill thematic and grammatical roles respectively.

Proposal
In Blackfoot (Algonquian: Alberta), NPs are merged in vP-internal theta positions and satisfy the argument structural requirements of the predicate, whereas nominal functional heads (e.g. Num, D) are introduced higher in the extended verbal projection and satisfy argument licensing requirements of the clause. Blackfoot being a predominantly head-marking language, argument-licensing functional projections are headed by verbal inflection such as agreement (Agr).

Evidence: Discontinuous Argument Expressions
If the NP and its functional head are not merged as a single constituent, then the two pieces should not be required to be string-adjacent in the surface syntax. This prediction is borne out by discontinuous DPs:

1. **Óóma áóhkiwa imítáów.**
   - oom-wa a-ohki-wa imitaa-wa
   - DEM-3SG IMPF-bark-3SG dog-3SG
   - “That dog is barking.”

Further, if discontinuity results from constructing DPs across theta and Case positions, then discontinuity should require a Case-assigning head (Agr). This is also borne out; direct objects comprised of a numeral and a noun optionally trigger verb agreement (2), but with no agreement, the numeral and the noun cannot be discontinuous (3).

2. a. **Nitómiïhkatsiïwa ni’tókskam mamíí.**
   - nit-omii-hkat-yii-wa ni’tokskam mamii
   - 1-fish-acquire-DIR-3SG one fish
   - “I caught one fish.”

   b. **Nitómiïhka ni’tókskam mamíí.**
   - nit-omii-hkaa ni’tokskam mamii
   - 1-fish-acquire one fish
   - “I caught one fish.”

3. a. **Ni’tókskam nitómiïhkatsiïwa mamíí.**
   - ni’tokskam nit-omii-hkat-yii-wa mamii
   - one 1-fish-acquire-DIR-3SG fish
   - “I caught one fish”

   b. **Ni’tókskam nitómiïhka mamíí.**
   - ni’tokskam nit-omii-hkaa mamii
   - one 1-fish-acquire fish
   - intended: “I caught one fish.”

Nominal Heads versus Modifiers
If nominal functional heads are licensed by Agr, then only nominal modifiers that trigger agreement should be able to function as heads. Those that don’t trigger agreement should behave as NP modifiers,
akin to adjectives. This prediction is borne out for demonstratives, which obligatorily trigger agreement (1) and function as D heads (cf. Glougie 2000). The prediction is also borne out for numerals. As noted for various Slavic languages (cf. Rutkowski 2002), numeral heads can yield partitive/genitive readings, but numeral modifiers cannot. In Blackfoot, plural morphology on numerals signals partitivity and is only possible on agreement-triggering numerals.

\[(4) \text{ a. } \text{nitsíkssta } \text{[omááhksaowaatóhkssaa omiksi imítááíks].} \]
\[\quad \text{nit-ikstaa om-aahk-saw-at-ohki-saa om-iksi imitaa-iksi}\]
\[\quad 1\text{-want } 3\text{-MOD-NEG-again-bark-NEG.3SG DEM-PL dog-PL}\]
\[\quad \text{“I want those dogs to stop barking.”}\]
\[\text{b. } \text{nitsíkssta [omiksi omááhksaowaatóhkssaa imítááíks.]}\]
\[\text{c. Omiksi imítááíks nitsíkssta [omááhksaowaatóhkssaa t].}\]
\[\text{d. *Omiksi nitsíkssta omááhksaowaatóhkssaa imítááíks.}\]

Deriving Continuous DPs

The idea of constructed DPs is not new; Sportiche (1997) similarly partitions the NP and D across theta and Case positions respectively. However, whereas Sportiche assumes (at least for “configurational” languages like English) that D selects for N, requiring D and NP to compose in the derivation, constructed DPs in Blackfoot may (optionally) remain discontinuous. We propose that, in Blackfoot, the selectional requirements of D/Num are satisfied via a long distance Agree relation resulting in feature-sharing of nominal features (cf. Karieva 2009). Discontinuity, then, does not violate selectional restrictions. Conversely, continuity is not the result of c-selection but rather results from discourse-driven linearization, an operation that finds independent support in Algonquian languages, which have dedicated linear positions for Topic and Focus (cf. Dahlstrom 1995; Junker 2004). This situates Blackfoot amongst “discourse configurational” languages, whose phrase structure is sensitive to discourse roles rather than theta or grammatical roles (Kiss 1995).

References

Wondering about the alternatives in Navajo
alternatives, modality, questions, Athabaskan

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This paper presents novel data and semantic analysis of the Navajo particle *daats’í*. I propose an analysis of *daats’í* within the framework of Alternative Semantics [7]. *Daats’í* requires both its syntactic associate proposition *p*, and at least one alternative to *p*, to be possible given the speaker’s beliefs.

**Data:** Speakers translate *daats’í* in matrix utterances as shown in (1):

(1) You went to school before your nauseous sister Mary.
   Mary bibid diniih. ‘Ólta’=góó doogáá! *daats’í*
   M. her.stomach it.hurts school=to she.will.go DAATS’Í
   a. ‘Mary has a stomachache…Will she go to school?’
   b. ‘…I wonder if she’ll go to school.’
   c. ‘…She might go to school.’
   d. ‘…Maybe she’ll go to school, or not.’

The variation in translation initially suggests that *daats’í* is ambiguous between a modal and interrogative meaning. However, I argue that *daats’í* has the semantics of neither class of morpheme. An analysis of *daats’í* as an interrogative morpheme is challenged by the availability of *daats’í* in contexts of mutual ignorance (2). *Daats’í* contrasts with Navajo interrogative marker *=ísh*:

(2) You don’t know if it is raining. You also know your coworker doesn’t know. You say:
   a. Nahaltin *daats’í*
      it.is.raining DAATS’Í
      ‘I wonder if it’s raining.’
   b. # Nahaltin=ísh
      it.is.raining=Q
      ‘Is it raining?’
   c. ‘Maybe it’s raining, or not.’

If *daats’í* were analyzed as a modal like English *might*, the account would have to account for the contrast between the felicitous (1) and the infelicitous (3):

(3) Mary has a stomachache, *(but) she might go to school.

Additionally, while true Navajo modals always take clausal scope [9], the interpretation of *daats’í* is sensitive to its linear position. In a focus context, *daats’í* must follow the focused constituent directly (4a). If *daats’í* appears in final position, speakers preferred a non-focal interpretation (4b):

(4) You know that your friend Mary is in pain because she asked for painkillers. You don’t know which body part hurts.
   a. Mary bibid *daats’í* diniih.
      M. her.stomach DAATS’Í it.hurts
      ‘It might be Mary’s stomach that hurts, is it Mary’s stomach that hurts?’
      Comment: ‘…or is it her head?’
   b. ?# Mary bibid diniih *daats’í*.

**Proposal:** I propose an analysis of *daats’í* in the framework of alternative semantics ([8]). I propose that *daats’í* is a modal particle associated with focus (F-) marking. F-marking makes available a phrase α’s focus semantic value, [[α]], which is the domain of α. *Daats’í* has as part of its meaning Rooth’s focus interpretation (~) operator, which introduces the presupposition that there is an alternative set C drawn from [[α]] consisting of at least one alternative in addition to α.
In (1) and (2), *daats’i*, the entire proposition \( \alpha \) is F-marked. The alternatives in \( C \) are stipulated as the polarity alternatives in (5b).

(5) a. \([ [ \text{it’s raining in } w ]]^f = D_{st}\)
   b. \( C = \{ \text{it’s raining in } w, \text{it’s not raining in } w \} \)

In examples like (4a), only the possessed NP *stomach* is F-marked. The alternatives in \( C \) are defined as other body part NPs.

(6) a. \([ [ \text{stomach}] ]^f = D_{et}\)
   b. \( C = \{ \text{stomach, head} \} \)

Proposition-level alternatives are generated through pointwise Function Application. The set of proposition-level alternatives for (4a) – contextually restricted by the focus interpretation operator - are shown below:

(7) \( \{ p_{<st>} : \exists g \in \{ \text{stomach, head} \}. p = \lambda w : \text{the } y \text{ s.t. } g(y) \text{ & } y \text{ belongs to Mary, hurts in } w \} \)

Regardless of whether a proposition or a smaller constituent is F-marked, *daats’i* occupies a fixed position in the syntax. It always composes with a proposition \( p \), for which there exists a set \( C \) of propositional alternatives. *Daats’i* imposes the requirement that while at least one of the speaker’s best doxastic alternatives is a world in which \( p \) is true, all of the propositional alternatives \( q \) in \( C \) must also be true in one of the speaker’s doxastic alternatives.

(8) \([ [\text{daats’i}] ] = \lambda C. p_{<st}>. \lambda w. \forall q \in C, \exists w’ \in \text{DOX-ALT}(w). q(w’) \& \exists w” \in \text{BWSTEREO}(\text{DOX-ALT}(w)), p(w”) \)

The illusion of ‘ambiguity’ in translations like (1), (2), and (4) is due to an imperfect match between Navajo and English: *daats’i* has a single semantic entry.

**Conclusions:** This proposal joins a body of analyses that invoke alternatives in accounts of questions ([4]), disjunction ([1, 2]), and free choice indefinites ([3, 5]). I also discuss a set of constructions (‘conjectural questions’) [7, 9] that resemble *daats’i* sentences and which have been reported for an increasing number of languages [7, 8, *inter alia*]. I consider how the analysis for Navajo could be extended to account for ‘conjectural questions’ in other languages.

**Word count:** 750

Expressing uncertainty with *gis*a in Tshangla

interrogativity, conjectural questions, question under discussion, semantics

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We analyze *gis*a-sentences in Tshangla, an understudied Tibeto-Burman language. *Gisa* has been characterized as an uncertainty marker (Andvik 2010). We develop and formalize this characterization using new data.

*Gisa*-sentences are frequently translated as interrogatives. Like interrogatives, they’re licit in contexts of speaker uncertainty. Unlike true interrogatives (1b), *gis*a sentences are felicitous in contexts of established mutual ignorance (1a), or in self-addressed contexts (not shown).

(1)  
Context: You are talking to someone who’s been in a windowless room with you all day.

a. Ngamsu kenca *gis*a  
   rain  *GISA*  
   ‘Is it raining?’

b. # Ngamsu kena=mo  
   rain=INTERROG  
   ‘Is it raining?’

When *gis*a appears in otherwise interrogative sentences, the interrogative is licit only if the Addressee can plausibly be uncertain, i.e., not in contexts of privileged Addressee knowledge (2a).

(2)  
Context: Doctor speaking to a patient.

a. # Oga  *gis*a  
   where hurts  *GISA*  
   ‘Where does it hurt?’

b. Oga  ngama?
   where hurts
   ‘Where does it hurt?’

Finally, unlike interrogatives, *gis*a cannot be embedded by factive verbs. *Gisa* can occur under attitude verbs, e.g., ‘think.’

(3)  
Context: Tshering is ill. Karma (a doctor) is trying to diagnose why.

Karma=gi Tshering  hangthur  malekpa zawa *gis*a  mina.
   K.=ERG  Tsh. something bad  ate  *GISA*  thinks
   ‘Karma thinks maybe Tshering ate something bad.’

We propose an analysis in the framework of quality thresholds, proposed by Davis et al. (2007) for evidentials and modals. We characterize the ‘uncertainty’ contributed by *gis*a as a reduction in the embedded proposition p’s quality threshold (the minimal degree of confidence required to assert p, (4)).

(4)  
An agent A can felicitously assert p in context c only if $C_{A,c}(p) \geq c_{\text{threshold}}$

Where $C_{A,c}$ maps p to A’s degree of belief/confidence in p in c and $c_{\text{threshold}}$ is the quality threshold of p.

$c_{\text{threshold}} \in [0,1]$; 0=total disbelief, 1=total belief, and 0.5=agnostic. (Davis et al. 2007)

Clause type determines the holder of the uncertainty. In declaratives, the Speaker (1a) or attitude-holder (3) is uncertain that p. In interrogatives (2), the uncertainty condition is ‘flipped’ to the Addressee, (cf. Tenny&Speas 2004) such that guesses count among the set of answers. ‘Interrogative flip’ is well-attested for Tibeto-Burman evidentials (Tenny&Speas 2004, Garrett 2001), but has been less frequently described for expressions of uncertainty without indication of evidence source.

Our analysis correctly predicts pragmatic restriction of *gis*a-sentences to contexts where $c_{\text{threshold}}$ doesn’t greatly exceed 0.5. While *gis*a permits higher $c_{\text{threshold}}$ values, if the Speaker or Addressee is confident, then Gricean quality prefers the regular declarative or interrogative, since these constructions require high $c_{\text{threshold}}$ values (Davis et al.).
We propose that the reduction of the quality threshold by *gisa* permits speakers to introduce questions under discussion (Roberts 1996) in the absence of an Addressee who is likely to be able to answer (cf. true interrogatives (1b)). We also place the proposal in the context of cross-linguistic work on expressions translated as, or morphologically related to, interrogatives that lack true interrogative force, e.g., ‘conjectural questions’ in Littell et al. (2010).

References
**Incomplete Vowel Lengthening:**

**Japanese Monomoraic Lengthening as Incomplete Neutralization**

Aaron Braver and Shigeto Kawahara

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**Introduction:** Incomplete neutralization refers to cases in which two underlyingly distinct segments become nearly (but not completely) identical on the surface. Studies on incomplete neutralization have tended to focus on final devoicing (e.g., Dinnsen and Charles-Luce 1984, Port and O'Dell 1985, Warner et al. 2004), though a few exceptions exist (e.g. Yu 2007). This experiment shows that in Japanese, vowel lengthening in response to a preference for minimally bimoraic Prosodic Words (PWds) creates an incompletely neutralized vowel length contrast. Thus, the typology of incomplete neutralization should include not just segment- and feature-level phenomena like final devoicing, but also processes that directly affect suprasegmental structure such as moras.

Japanese prefers minimally bimoraic PWds (Poser 1990, Itô 1990). Monomoraic nouns, (e.g., fu “gluten”) can combine with a particle (e.g., mo “also”) to provide the necessary second mora (fu + mo = 2 moras). When these particles are absent in casual speech, monomoraic nouns lengthen to fulfill the bimoraicity requirement. In her production study, Mori (2002) found that monomoraic nouns without particles, like fu in (1b) were 40–50% longer than monomoraic nouns that were followed by particles, like fu mo in (1a).

Our experiment shows that this lengthening is incompletely neutralizing by (a) replicating the finding that particle-less monomoraic nouns are indeed longer than those followed by particles, and (b) showing the novel finding that vowels in lengthened monomoraic nouns are not as long as underlyingly long vowels in nouns with identical segments (a question not examined by Mori).

**Method:** 15 sets of minimal triplet sentences were constructed, each containing: (a) a monomoraic noun followed by the particle mo (“short/prt” condition), (b) a monomoraic noun without a particle (“short/Ø” condition), and (c) an underlyingly long noun (“long” condition) without a particle. A sample set is given in (1), with the target nouns in bold.

<table>
<thead>
<tr>
<th></th>
<th>(a) short/prt:</th>
<th>(b) short/Ø:</th>
<th>(c) long:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>fu mo nokoshita yo</td>
<td>fu Ø nokoshita yo</td>
<td>fuu nokoshita yo</td>
</tr>
<tr>
<td></td>
<td>gluten also remained EMPH</td>
<td>gluten remained EMPH</td>
<td>seal remained EMPH</td>
</tr>
</tbody>
</table>

12 native speakers of Japanese participated in the experiment. The participants were recorded reading each of the 45 sentences (15 sets x 3 sentences) in random order, after which the sentences were re-randomized. Each speaker read each sentence a total of 7 times. The duration of the vowel in each noun was measured. Statistical significance was assessed with a linear mixed model in which vowel duration was regressed against condition (short/prt, short/Ø, long) as a fixed factor and with speaker and item as random factors. Condition was treatment coded to produce comparisons between short/prt vs. short/Ø (to assess whether lengthening occurs) and short/Ø vs. long (to assess whether lengthened nouns are as long as underlyingly long nouns).

**Results:** As can be seen in Fig. 1, vowels in monomoraic nouns without case particles (middle bar) were significantly longer than in monomoraic nouns with case particles (left bar; mean difference: −69.98ms, t=−15.692, p<0.001). Fig. 1 also shows that vowels in underlyingly long nouns were significantly longer than in lengthened monomoraic nouns without case particles (mean difference: 32.47ms, t=7.047, p<0.001). This pattern—a three-way distinction between short/prt, short/Ø, and...
Discussion: These results suggest that the short/long vowel length distinction in Japanese is incompletely neutralized when monomoraic nouns without case particles are lengthened: These lengthened nouns must have two moras on the surface to meet the Japanese bimoraicity requirement, yet their vowel durations are intermediate between those of underlyingly short and underlyingly long vowels. Further, since the lengthening is triggered by a clearly phonological constraint, it cannot be treated as a matter of phonetic implementation—unlike a number of proposed cases of incomplete neutralization (e.g., intrusive stops in English, Ohala 1974).

While many cases of incomplete neutralization, especially cases of final devoicing, tend to be cashed out in terms of small durational differences on the surface, we know of no previously reported cases where it is a vowel length contrast itself that is incompletely neutralized. These results expand the typology of processes that can lead to incompletely neutralized contrasts to include not just processes at the segment- and feature-level, but also processes motivated by suprasegmental structure. These findings, in addition to their empirical significance, also have implications for theoretical models of incomplete neutralization, suggesting that the phonetic implementation module may be sensitive to both input and output moraic structure.

Selected References
Context Sensitive Unaccusativity in Russian and Italian

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Introduction. Since the formulation of the Unaccusativity Hypothesis (Perlmutter (1978), Burzio (1981), (1986), numerous data pieces in various languages have been claimed to be at odds with it (Rizzi and Belletti (1982), Lonzi (1986), Van Valin (1990) among others). The arguments pointed to are empirical: the intransitive verb classes are not uniform and sensitive to factors which often go beyond the verb unaccusativity per se (Folli and Harley (2006), Calabrese and Maling (2009), Partee and Borschev (2002), Partee et al (2011)). In this paper, I make a parallel between the puzzling pieces of data in Russian and Italian, whereby verbs that are typically described as unergative, in the presence of an explicit existential context, can reveal unaccusativity properties (Gen of Neg subjects for Russian; a mismatch between auxiliary selection and ne-cliticisation for Italian). The analysis proposed relies on the two alternative argument structures and the notion of a Perspective Structure (Partee and Borschev (2002)) which serves as a mechanism underlying the speaker's choice between the two argument structures being equally available in a language.

Data (Russian). Babby (2001) points to the relevance of an existential context for licensing Gen of Neg subjects. Verbs which are typically listed as unergative verbs (play, work, hide) and normally resist taking Gen of Neg subjects (VP-internal position) (2), can take Gen of Neg subjects on the existential reading of the verb facilitated by an explicit context or a preverbal Loc PP (see (1)). Locative Inversion can be acceptable with unergative verbs only if the posverbal subject is indefinite/non-specific (3)a,b. Manner adverbs are disallowed with LI (3)c.

Data (Italian) Lonzi (1986), Calabrese and Maling (2009), note that many of the verbs selecting avere (Have) auxiliary in Italian (Have-unergative/Be-unaccusative) allow ne-cliticisation (VP-internal position) (see (4)). On a parallel to Russian data, the use of ne-cliticisation with these verbs requires a special interpretation of the verb: 'eventive' with no agentive theta role (Lonzi (1986)); stage level existential (Bentley (2006); stative reading (Calabrese and Maling (2009)). A shift in auxiliary choice (with alternating verbs) is required when the verb expresses a process of no inherent duration (stative) (see (5)). Postverbal subject constructions can occur with unergative predicates if the subject is a bare plural (6), or indefinite (7). Ne-cliticisation of postverbal plural subjects is disallowed. Manner adverbs are not acceptable in postverbal subject constructions.

Analysis. Following Borschev and Partee (1998), (2002), Partee et al (2011), I assume that what underlies optional acceptability of Gen of Neg subjects with unergative predicates is the existential vs predicative verb distinction. I argue that structurally any unergative predicate (potentially any non-delimited predicate) is a choice between the two argument structures available to the speaker: (i) regular vP structure with an Agent argument position in Spec, vP (ii) a vP structure with a Theme argument matched to an existential verb (see (8), (9)). The choice is determined by means of the Perspective Structure: given the contextual clues or emphasis, the speaker is choosing between an existential or a full interpretation of a given verb (see Partee et al (2011) for details). The two structures are disambiguated by LI in Russian, whereby the definiteness condition on postverbal subjects follows Diesing's (1992) Mapping Hypothesis. Manner adverbs are incompatible with existential interpretation of a verb, thus explaining (3)c. The same two structures are disambiguated by ne-cliticisation and postverbal subject constructions in Italian, but not by auxiliary selection. The auxiliary selection depends on presence/absence of inherent duration of the change, existence or activity expressed by the predicate.
Inherent duration closely interacts with the Perspective Structure creating only partial overlap with verb’s unaccusativity: existential verbs (typically) lack inherent duration, change of state verbs may/may not express it, while activity verbs typically show it in most cases.

**Russian**

(1) Meždu brevñami ne skryvalos’ tarakanov  
   in between beams_{Loc} not hide cockroaches_{Gen}  
   ‘There were no cockroaches hiding in between the beams’

(2)* vorov ne skryvalos’ ot polizii  
   thieves_{Gen} not hid from policii  
   ‘Thieves were not hiding from the police’

(3)a.?Na večere pela aktrisa  
   at party sang actress  
   Locative Inversion (LI)
b. Na večere pela kakaja-to aktrisa  
   at party sang some kind of actress  
c.??Na večere (gromko)pela kakaja-to aktrisa  
   at party (loudly) sang some kind of actress  
   Manner adverb in LI

**Italian**

(4) Ne giocano sempre solo tre, (di bambini)  
   ne play always only three (of children)  
   ‘Only three of them always play’

(5)a. Ieri hanno suonato le campane  
   yesterday have rung the bells  
   be rung the bells  
   ‘the bells rang (for a while) yesterday’  
   ‘the bells have rung’ (fact, regardless of duration)
b. Non ne è suonata forte nessuna (di campana)  
   ne be rung loud none (of bells)
   ne-cliticisation +Be

(6)a. In quella fabbrica hanno lavorato molti stranieri  
   in this factory have worked many foreigners  
   (Permutter (1983: 178))
b.* ne hanno lavorati molti in quella fabbrica  
   ne have worked many in this factory  
   ne-cliticisation

(7)a. in questo bosco ha cantato un uccello (*i uccelli)  
   in this forest have sung one bird (the birds)
   manner adverb
b.?? in questo bosco ha cantato un uccello/uccelli avaluatravosa  
   in this forest have sung one bird/ birds loudly

(8) [vP [v' v [VP [v' V_{BE} XP_{Theme}]]]]

(9) [vP XP_{Agent} [v' v [VP [v' V]]]]

**Selected References**


The Great Escape: A-movement out of finite clauses in Bantu languages
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Keywords: phases, raising, Agree, Case

0. Introduction
On the familiar story (Chomsky 1981, Chomsky 2001), in raising constructions the DP subject is licensed via Agree with a finite T, so raising is only possible out of a non-finite clause, as this is a non-licensing context:

1) a. It seems [that John is sick]
   b. *It seems [John to be sick]
   c. John seems [John to be sick]
   d. *John seems [that John is sick]

The raising operation in (d) can be argued to be ruled out on a variety of grounds, including constraints on Case, agreement, and illicit A-movement over a phase boundary. Contrary to the familiar pattern in (1), however, many Bantu languages exhibit raising out of a finite lower clause:

2) a. Ka-lolekhana (mbo) babaandu ba-kwa [Lubukusu]
   6SA-seem (that) 2people 2SA.PAST-fall
   ‘It seems that the people fell.’

   b. Babaandu ba-lolekhana (mbo) ba-kwa
   2people 2SA-seem (that) 2SA.PAST-fall
   ‘The people seem like they fell/The people seem to have fallen.’

We refer to this kind of raising construction as hyper-raising, borrowing the term from Nunes (2008). In the paper we show that hyper-raising (and related constructions) are unmarked constructions in Bantu languages, including examples from Lubukusu, Lusaamia, Digo, Shona, and Zulu.

1. Is this actually raising?
The prevailing empirical question about hyper-raising constructions is whether these are true examples movement from the lower clause, as opposed to copy-raising constructions like (3) (except with a null pronoun in the Bantu version):

3) John seems like he is sick.

We show that the structure of sentences like (2)b is parallel to (1)d, rather than (3); one familiar kind of evidence is that idiomatic readings are retained in hyper-raising constructions, which is standardly interpreted as evidence that the raised subject originated in the lower clause:

4) Chi-dembo chi-nenge ch-a-vii-wa [Shona]
   7-skunk 7SA-seems 7-PRF-skin-PASS
   The skunk seems to have been skinned.
   = the secret seems to have been exposed.
We also invoke diagnostics regarding identification of the perceptual source of the subject of perception verbs (Potsdam and Runner 2001, Landau 2009), raising out of the complement of passivized verbs, and long-distance raising constructions, all of which support a hyper-raising analysis as opposed to a copy-raising analysis of constructions like (2)b.

2. **How is it possible to A-move out of finite clauses?**

We propose that that A-moving out of CP does exist, but is epiphenomenal, relying on existing proposals for independent phenomena:

- If an embedded CP is agreed with, this eliminates that CP’s status as a phase boundary (Rackowski and Richards 2005, Halpert 2012).
- A DP can exit CP if it is sub-extracted out of a containing operator that has moved to Spec, CP (Hicks 2009, Cable 2010).
- Clausal complements may be bare (finite) TP with no CP level.

We give evidence from a variety of Bantu languages showing that each of these options are manifest in the Bantu family, with different morphosyntactic realizations of each option, and with some languages even allowing multiple options.

3. **How is movement possible after the DP’s Case is presumably checked in the lower clause?**

There is a rich and growing tradition of work within the Bantu family showing that Case-licensing does not constrain DP positions in the expected ways (e.g. Harford Perez 1985; Diercks 2012; Halpert 2012). We follow Harford (1985) and Diercks (2012) in claiming that Case features do not need to be valued in Bantu.

4. **How is it possible to Agree with the same DP multiple times, when the DP should have been deactivated?**

While this kind of agreement is cross-linguistically marked, we show that it is in fact common in Bantu languages and follow existing proposals by Carstens (2010, 2011) that the prominence of gender-based agreement in Bantu reveals that DPs are made active for agreement by an uninterpretable and valued gender feature, rather than uninterpretable, unvalued Case. Because gender is valued lexically and not derivationally, such DPs are never deactivated as goals for Agree in the course of the syntactic derivation.

5. **Summary**

We therefore bring together a cadre of disparate proposals to form a unified explanation for why hyper-raising is both possible and prevalent in the Bantu languages. The end result makes an empirical contribution to our knowledge of both the typology of raising constructions as well as the distribution of DPs cross-linguistically, in addition to enriching our understanding of core architectural questions like agreement, Case-licensing, and phase boundaries.

740 Words
Which subject islands will the acceptability of improve with repeated exposure?

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Satiation – the increased acceptability of a construction due to repeated exposure – is known to occur in certain weak extraction islands, such as whether islands. But its existence in Subject Islands (SIs) remains controversial. Whereas Hiramatsu (1999), Snyder (2000) and Francom (2009) observed it, Sprouse (2009) and Crawford (2011) did not. In particular, Sprouse (2009) argued that the satiation in Snyder (2000) is due to a confound: the ungrammatical sentences outnumbered the grammatical ones, leading participants to employ an equalization strategy, balancing out their yes/no responses. The implication from Sprouse (2007: 123) is that SIs cannot stem from performance constraints, contra Kluender (1998, 2004). If there is no licit representation for a SI, then there is nothing to satiate.

In this work we show that certain SIs reliably satiate, and that Sprouse (2009) and Crawford (2011) have overstated the generality of their results. In our view, Sprouse (2009) and Crawford (2011) failed to find satiation because of their experimental items. As illustrated in (1), these studies use sentences containing additional sources of processing difficulty: finite clause embedding and non-specific wh-phrases (i.e. who/what rather than specific wh-phrases like which president). These factors are independently known to hamper sentence processing (Kluender 1992, 1998), including gerundial SIs (Clausen 2011).

(1)  a. *What does [that you bought_] anger the other students?  (Sprouse 2009)
b. *Who does the guide believe [a crowd of__ arrived late]?  (Crawford 2011)

These satiation studies have also neglected the relationship between the wh-phrase, the subject, and the verb. Kluender (2004) notes that SI acceptability may improve if ‘the filler-gap dependency into the subject position is construed as of some pragmatic relevance to the main assertion of the sentence’. Chaves (in press) offers a concrete definition of this sense of relevance, drawing from Kuno’s work. For example, in (2a) the wh-phrase which problem is relevant for both the subject NP (because a solution can only exist if there is a problem) and the VP (because a solution can only be found by someone if the respective problem is known). The same applies to (2b), with the specific wh-phrase.

(2)  a. [Which problem] / ?[What] will no solution to__ever be found?
b. [Which president] / ?[Who] will the impeachment of__cause outrage?

Experiment A: A 7-point Likert scale acceptability judgment experiment was constructed to verify i) if wh-filler specificity causes increased acceptability for sentences like (2) and ii) if satiation occurs. The experiment consisted of 20 experimental items (all of which were normed for Kluender’s relevance condition), as well as 40 distractor items, balanced across two lists. Distractors were of three types:

(3)  a. [NP of NP] subject.
   E.g: Which vineyard did the bottle of wine come from _?
b. [the VERB-off] subject.
   E.g.: Which wrestlers did the face-off annoy _ the most?

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c. Simple NP subject and gapped complement gerund phrase
   E.g.: Which boat did the soldiers think of attacking? _

Half of the distractors were made ungrammatical by using incorrect prepositions (i.e., Which boat did the soldiers think at attacking?) and simultaneously, half of the distractors featured a non-specific wh-phrase whereas the other half featured a specific wh-phrase. Responses were analyzed using a linear mixed-effects regression model with wh-phrase specificity and order of experimental presentation (to detect for satiation) as predictors. SIs with specific wh-phrases were more acceptable than those with unspecific wh-phrases (2.88 vs. 2.25 respectively, p=0.002) and satiation occurred (p=0.001). The latter result refutes Sprouse’s and Crawford’s conclusions.

**Experiment B**: Experiment A was replicated employing 40 grammatical distractors. If participants engaged in an equalization strategy in Experiment A, then SIs would be rated lower (compared to the grammatical distractors) as the experiment progresses, thereby preventing satiation. Responses were analyzed using a linear mixed-effects regression model with the same predictors as Experiment A. Again, SIs with specific wh-phrases were judged more acceptable than those with unspecific ones (3.22 vs. 2.41 respectively, p=0.0001), and satiation occurred (p<0.0001). Experiment B’s results rule out the equalization problem raised by Sprouse (2009).

In this work we report various other experiments. The overall result is clear: SIs can reliably exhibit satiation, contra Sprouse (2009) and Crawford (2011). We conjecture that the latter failed to obtain satiation because their items were too difficult to process and lacked relevance in the sense of Kluender (2004). Consequently, the argument in Sprouse (2007: 123) linking the grammatical nature of SIs to absence of satiation is invalidated. One must be cautious in interpreting satiation; it may be informative only when other factors affecting acceptability are controlled for.

**References**
Restructuring in Squliq Atayal

Keywords: restructuring, Atayal, antipassive

Overview: This paper exemplifies how language variation may interact with principles common to all languages. The voice system of Squliq Atayal (VOS; Formosan) differs radically from that of languages like German. For example, Squliq voices determine which argument can A'-extract. I argue, however, that this system interacts with a Restructuring alternation identical to that of German (Wurmbrand 2001). Evidence for restructuring includes absence of embedded negation and tense. Moreover, AV and Patient Voice (PV) clauses differ in whether the agent or patient is Nominative-marked. AV objects bear Nominative when embedded under a PV restructuring verb, as predicted if (i) the Accusative-assigning head is absent in the infinitive and (ii) the AV object receives structural case. (ii) entails that AV in Squliq is not antipassive and Squliq is not ergative, contra previous research on Atayal and related languages (Huang 1994).

Reduced infinitive: Restructuring is an embedding construction whose embedded infinitive is radically functionally impoverished. A Squliq example is given in (1).

(1) M-asuq m-aniq sehuy qu Yumin.
   AV-finish AV-eat taro NOM Yumin
   ‘Yumin finished eating taros.’

The complement of restructuring verbs (restricting infinitive) cannot be negated or have independent tense, as (2)-(3) show. Such restrictions are not observed in non-restructuring sentences. These suggest that the infinitives must exclude TP and NegP.

(2) *T<tn>alam iyat qaniq sehuy qu Yumin.
   <AV>try NEG [AV]eat taro NOM Yumin
   Intended: ‘Yumin tried to not eat taros.’

(3) *M-wah hera m-aniq sehuy suxan qu Yumin.
   AV-come yesterday AV-eat taro tomorrow NOM Yumin
   Intended: ‘Yumin came yesterday to eat taros tomorrow.’

Long Passive: If restructuring infinitives are so small that they lack even the Accusative-assigning v0 present in simple clauses (4a), we predict that passivizing the restructuring verb will remove the possibility of Accusative on the embedded object, which then must take Nominative from matrix T0. This is correct, as (4b) shows.

(4) a. Cyux m-aniq sehuy qu Yumin.
    AUX AV-eat taro NOM Yumin
    ‘Yumin is eating taros.’

    b. Suq-un m-aniq na Yumin qu sehuy.
    finish-PV AV-eat GEN Yumin NOM taro
    ‘The taros will be finished eating by Yumin.’

Condition C: Condition C further shows that the embedded object in (4b) has A-moved across the external argument (EA). In (5a), an AV restructuring sentence, the subject hiya c-commands Yumin in the embedded object and cannot be coindexed with Yumin. However, when the matrix verb is in PV (5b), the coin dexation is grammatical.

    AV-finish AV-eat taro GEN Yumin NOM 3SG.FREE
    ‘He,1/2 finished eating Yumin,1’s taros.’
b. Suq-un=nya-1/2 m-aniq [qu sehuy na Yumin.1].
   finish-PV=3SG.GEN AV-eat NOM taro GEN Yumin
   ‘Yumin.1’s taros will be finished eating by him.1/2.’

Creation Verbs: In a PV restructuring sentence (6), kbalay can only mean ‘fix’ whereas in the corresponding AV sentence, kbalay is ambiguous between ‘build’ and ‘fix.’ The incompatibility with creation verbs in (6) supports that the embedded object has moved to the matrix clause across the existential closure.

(6) Suq-un kbalay na Yumin qu ngasal.
   Finish-PV [AV]make GEN Yumin NOM house
   ‘The house(s) will be finished *building/fixing by Yumin.’

A’-extraction: A’-extraction in Squliq can only apply to the Nominative argument, the highest argument of the clause (e.g. only agents can A’-extract in AV simple clauses). However, in a PV restructuring sentence (7), the embedded object can A’-extract even though the embedded verb is in AV. This shows again that the object has moved across the EA.

(7) Nanu suq-un m-aniq na Yumin?
   what finish-PV AV-eat GEN Yumin
   ‘What will be finished eating by Yumin?’

Structure: I propose that Squliq restructuring verbs take a bare VP complement. This explains the absence of embedded negation, tense and case dependency between the embedded object and matrix v0 or T0.

Actor Voice: Squliq and related languages have been argued to be ergative (Aldridge 2004). AV sentences are said to exhibit properties found in antipassives: (i) they are less telic and (ii) AV objects are usually indefinite/nonspecific. However, the restructuring data suggest that the case on AV objects cannot be oblique. Specifically, we showed that when an AV object occurs in a restructuring infinitive and when the matrix verb is in PV, the object bears Nominative. This cannot be explained if AV sentences are antipassives whose object receives oblique case. That AV is not antipassive further argues against an ergative analysis for Squliq. Moreover, restructuring is found in most Formosan languages (Chang 2010), many of which have been argued to be ergative (Starosta 1986; Chang 1997). The discussion here suggests we re-evaluate such treatment of these languages.

Word Count = 750

References
A Q-Based Approach to Multiple Wh-Fronting
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Keywords: wh-movement, multiple wh-questions, superiority, Slavic

The nature of multiple wh-fronting in Russian, where all wh-phrases must move overtly to the edge of the clause both in single and multiple wh-questions, as shown in (1), is far from being a straightforward topic since there is no agreement among researchers about whether or not Russian wh-phrases undergo [wh]-driven movement.

(1) a. Kogo poceloval Ivan? b. *Kto1, kogo2 poceloval?
who-ACC kissed Ivan-NOM
'Who did Ivan kiss?'
'Who kissed who?'

On the one hand, the aforementioned obligatoriness of wh-fronting can be taken as evidence that Russian exhibits standard wh-movement. However, the fact that Russian appears to be insensitive to Superiority effects, (1c) vs. (1e), was used to argue that Russian in its core is a wh-in-situ language where wh-fronting is a kind of focus movement (see Stepanov 1998, Bošković 2002).

Following Cable (2010), I argue that in Russian — as well as in other languages — what has been analyzed as wh-focus-movement is in fact a secondary effect of Q-movement. Cable claims that in all languages the movement is triggered by the features of a Q-particle which is merged with wh-word (or some larger structure, XP). Languages with overt movement contain the structure as in (2a), where Q projects a QP layer which dominates both Q and its sister XP (consequently, attraction of the Q-feature into CP triggers movement of the whole QP), while languages with wh-in-situ have the structure as in (2b), where Q does not take XP as complement, but rather adjoins to it (hence, only Q is attracted by C, and XP is left in-situ): (1c)

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Crucially for Russian data, what follows from the Q-based approach is that there should not be necessarily a correlation between the availability of wh/Q-movement and Superiority effects, since the latter — due to Attract Closest principle — arise only when the derivation contains multiple QPs, as in (3). Meanwhile, the insensitivity to Superiority is due to the particular head C (labelled here CQ) available in some languages which is able to agree with only one Q and, consequently, only the wh-phrase contained within the single QP moves up to CQ, while the rest remain in-situ and move by LF, as in (4).

The structure in (3) accounts for the well-known properties of English multiple wh-questions, and (4), for their German counterparts (see Beck 2006, Pesetsky 2000, a. o.). Notice that in both languages only one wh-phrase moves overtly. However, the type of multiple wh-movement attested in Slavic languages, and particularly in Russian, is unexpected under Cable’s Q-based approach. Thereby I will propose two minimal, yet significant, additions to the hypothesis, which will enable the theory to capture multiple wh-fronting phenomenon.

First, I argue that the lexicon of Russian contains a head CQ which contributes multiple existential quantifiers into the meaning of the interrogative and introduces multiple Qs. However, I propose that once Q is merged with XP there are two possible projection options in the same language: if Q projects we obtain QP, as in (5a); if X projects, we obtain XP, with an adjoined Q, as in (5b). I claim that in Russian multiple wh-questions there is only one projected Q (dominating either the higher or the lower wh-word), while the rest are adjoined.

Secondly, I adopt the idea that in Russian the verb obligatorily moves from v to i in order to value its aspect/tense features (see Svenonius 2004). As a consequence, adopting the Phase Extension Hypothesis (see Den Dikken 2007, Gallego 2007, a.o.), I argue that in Russian (single and multiple) wh-questions the Vp phase gets extended to IP, which means that after v-to-i movement the VP-edge turns into the domain of the extended phase (cf. Dyakonova 2009). Subsequently, given PIC, all the potential goals — particularly wh-phrases— must move in a tucking-in manner out of the domain into the newly constructed IP-edge, as in (6), in order to be probeable by C:

(5) a. OP
Q

b. Q
X

(6) a. [\[\{ \]
C

b. [\[\}
C

...wth...
Interestingly, recall that the identification of Spec,IP as an intermediate landing site for fronted wh-phrases in some languages was previously proposed by Richards (2001), who argued for the existence of two types of multiple wh-fronting languages: ‘CP-absorption type’ vs. ‘IP-absorption type’, illustrated in (7a,b):

(7)  
\[ \text{a. } [\text{CP} [\text{SpecCP} w'h' \text{wh}_t [(\text{IP} \text{wh}_b) \text{h}_b]]] \quad \text{CP-absorption} \]  
\[ \text{b. } [\text{CP} [\text{SpecCP} w'h' [(\text{IP} \text{wh}_t \text{wh}_b \ldots) \text{h}_b]]] \quad \text{IP-absorption: superiority-obeying questions} \]  
\[ \text{c. } [\text{CP} [\text{SpecCP} w'h' [(\text{IP} \text{wh}_t \text{wh}_b \ldots) \text{h}_b]]] \quad \text{IP-absorption: superiority-violating questions} \]  

Nevertheless, while Richards explicitly avoids speculating on the force driving IP-movement of wh-constituents, the phase-extension approach offered here can easily explain it, in terms of standard displacement of goals from the domain of a phase to the edge of an extended phase in order to be visible for the probe. Additionally, I suggest that this proposal has another advantage over the original hypothesis since it can provide a natural explanation of the derivation of superiority-violating orders, such as (1e), without claiming that movement of wh\(_2\) to the outer Spec,IP—which violates both Attract Closest and Shortest Move principles—can sometimes be allowed in IP-absorption languages, as illustrated in (7c).

Once the goals reach the IP-edge, the derivation proceeds in a familiar way. The head C\(_{\text{m-o}}\) scans down the tree and attracts all the Q-features, which entails that the projected Q will pied-pipe the whole QP, while the adjoining Q will move alone, living the wh-word in-situ (cf. also Uriagereka 1998). Consequently, if QP dominates wh\(_1\), the superiority-obeying word order will arise; however, if QP dominates wh\(_2\), then superiority-violating structure will be derived, as shown in (8):

(8)  
\[ \text{a. } [\text{CP} [\text{vp} \text{wh}_1 \text{Q} \text{m}_n \text{h}_1 [\text{vp} \text{wh}_2 \text{h}_2] \text{INV}]] \quad \text{Superiority-obeying order} \]  
\[ \text{b. } [\text{CP} \text{Q} \text{vp} \text{wh}_2 \text{Q} \text{m}_n [\text{vp} \text{wh}_1 \text{h}_1] \text{INV}]] \quad \text{Superiority-violating order} \]  

Furthermore, I show that the derivations in (8), apart from obeying Attract Closest and Shortest Move syntactic principles, are also ruled by LF economy principles (see Reinhart 1998, Fox 2000, a.o.) under which superiority-violating questions must be semantically different from those with superiority. Thus, while Russian superiority-obeying questions as in (1c) may obtain both pair-list and single-pair readings, their superiority-violating counterpart as in (1e) allow only for pair-list answers, as shown in (9) (see also Wiltshko 1997 for similar observations in German). Notice that this difference on the semantic interpretation is unexpected under Stepanov’s (1998) and Boškovič’s (2002) focus-fronting approach.

(9) Context: I know that John and Mary must have talked to each other on the phone. Tell me:
\[ \text{a. Ktoži komeži pozvonili?} \quad \text{b. *Komeži ktož pozvonili?} \]  
“Who called?”

This Q-based approach on multiple wh-movement in Russian, which is insensitive to Superiority effects, maintains all the advantages of the Cable’s original theory, but is empirically more efficient since it can account on the complex set of data such as (1), which is left otherwise unexplained.

This paper investigates English-speaking children’s purported difficulty with the comprehension of raising structures that contain an experiencer phrase. We show that comprehension improves significantly when (i) the experiencer is fronted to the beginning of the sentence, or (ii) it is an in situ pronoun rather than a lexical NP. We argue that children’s previously-reported difficulty with raising structures is not due to a grammatical deficit of any kind, but rather to performance-related intervention effects of the kind observed in numerous other sentence types (e.g., object relative clauses).

Various investigations of the acquisition of raising sentences (e.g., Hirsch & Wexler, 2007; Hirsch, 2011; Orfitelli, 2012) have reported that young children comprehend the unraised pattern (1a) but not its raised counterpart (1b):

(1) a. It seems to Mary that John is happy.
   b. John seems to Mary to be happy.

This difficulty has been interpreted as evidence for theories of language acquisition (e.g., Borer & Wexler, 1987) which posit that certain syntactic representations are not permitted by child grammars. For example, Wexler (2004; Universal Phase Requirement) proposes that children treat as ungrammatical configurations in which movement occurs across a defective phase boundary from a non-edge position, while both Hyams & Snyder (2005; Universal Freezing Hypothesis) and Orfitelli (2012; Argument Intervention Hypothesis) argue that movement past a structurally intervening argument is impossible for children.

We propose that the source of the difficulty in raising patterns stems not from a grammatical deficit, but from the performance limitation responsible for ‘intervention effects’ in a variety of other constructions. Children (and adults) have been shown to have difficulty with structures in which an NP intervenes between a filler and the associated gap, including object relatives, object topicalizations and object wh-questions (Avrutin, 2000; de Vincenzi et al., 1999; Friedmann et al., 2009; Friedmann & Lavi, 2006). Interestingly, intervention effects in these patterns seem to be sensitive to the type of intervening NP. In particular, several studies (e.g., Arnon, 2010) have found that children are better at comprehending object relatives with pronoun interveners (e.g., the nurse that I am drawing _) than ones with intervening lexical NPs (e.g., the nurse that the girl is drawing _). This pronoun-lexical NP difference is considered a signature property of this kind of performance-related intervention effect. Thus, if children’s difficulty with raising is due to the same sort of limitation, manipulation of the type of intervening experiencer should have a similar effect on children’s comprehension. In contrast, other accounts predict that the type of intervener should not be crucial for children’s comprehension: it is the grammatical operation itself (Wexler) or the mere presence of an (argument) intervener of any type (Hyams & Snyder, and Orfitelli) that is problematic.

Three experiments (using the Truth-Value Judgment technique, Crain & Thornton, 1998) were conducted to test our hypothesis. Experiment 1 (children aged 4;4 to 5;5, mean=4;8, n=23) tested raising sentences with an intervening lexical NP experiencer (e.g., Bart seems to Lisa to be studying); Experiment 2 (3;3 to 5;8, mean=4;7; n=28) tested raising sentences in which the experiencer phrase was fronted to the beginning of the sentence (e.g., To Lisa, Bart seems to be studying); Experiment 3 (3;6 to 5;10, mean=4;8, n=19) tested raising sentences with an intervening pronominal experiencer (e.g., Bart seems to her to be studying). Each child watched 10 stories (2 warm-ups, 6 critical items, 2 fillers, randomized), after which
they judged the truth of a puppet’s statement. Two types of critical sentences were used, balanced for match/mismatch: unraised and raised test items.

Figure 1 presents the results from children who scored 100% on the unraised condition (thus excluding those who failed to comprehend the verb seem). For the raised condition, there was a statistically significant difference among experiments as determined by a one-way ANOVA ($F(2, 33)=8.847, p=0.001$). A Bonferroni post-hoc test revealed that children’s score on the raised condition was significantly higher in Exp.2 ($p=0.001$) and Exp.3 ($p=0.013$), compared to Exp.1. This suggests that children’s difficulty with raising is significantly reduced when the dependency is not interrupted by an intervener (Exp.2) or when the intervening experiencer is a pronoun (Exp.3). Taken together, these findings show that children’s difficulty with raising structures is sensitive to the same factors as other structures for which performance-related intervention effects have been posited, and not to any grammatical effects per se. In particular, children’s superior comprehension of raising across a pronominal intervener directly contradicts grammatical-deficit hypotheses (Wexler, 2004; Hyams & Snyder, 2008; Orfitelli, 2012, and others) of the kind considered in the field to date.

![Figure 1. Mean correct percentage for the raised condition](image)

**Selected References**


Ergativity and the complexity of extraction: A view from Mayan

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Abstract: Researchers using different methods have converged on the result that subject relative clauses (RCs) are easier to process than object RCs. Cross-linguistic evidence for the subject processing advantage (SPA) has come mostly from accusative languages where grammatical function and case correspond, preventing researchers from investigating whether case or grammatical function underlies the SPA. Ergative languages allow for the separation of case and function, since more than one case is associated with the subject position. Prior results on the processing of ergative languages suggest that function and case are equally important in RC processing and differential effects are also visible. The ergative cues the projection the absolutive object, which gives preference to the absolutive, but the ergative is also preferred as subject. This paper tests these findings by examining the processing of RCs in Ch’ol and Q’anjob’al, two head-initial ergative languages that mark ergativity via agreement. The results again support the SPA but do not show any cueing by the ergative agreement marker. We conclude that case is superior to agreement in tracking grammatical function, and in the absence of case cues, structural preferences become more pronounced. Therefore the SPA is evident in both ergative and accusative languages.

Keywords: Ergativity, Mayan, Processing, Relative clauses, Subjects, Subject preference
Word-internal XPs and right-headedness in Inuit

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Claim: This paper argues that data from noun incorporation (NI), conjunction, ellipsis, a VP pro-form, and adverb ordering in Inuit (Eskimo-Alut) provides evidence for word-internal XPs and right-headedness inside polysynthetic words, contra Piggott & Travis’s (2012) proposed ban on phrasal material inside words and Kayne’s (1994) Linear Correspondence Axiom (LCA) (insofar as it is claimed to universally map asymmetric c-command to precedence instead of subsequence).

Background: P&T propose (following Baker 1996) that phonological words cross-linguistically correspond to syntactic heads—simplex or complex—with morphologically complex words being derived via head movement, head-adjunction, cliticization, or PF lowering. This analysis predicts that words cannot contain XPs, except for those joined via cliticization or PF movement. For polysynthetic languages such as Inuit, it results that clausal complexes such as (1) are either the result of adjunction or head movement:

(1) puijura-gunna-lauq-sima-nngit-tuq
    swim-can-instead-DIST.PAST-PERF-NEG-DEC.3SG
    ‘(S)he was not able to swim instead.’

Since all elements corresponding to the clausal skeleton appear exclusively inside such clausal complexes, and in roughly the order predicted by selection (Wiltschko’s 2011 “universal spine”), a structure based primarily on head-adjunction seems unlikely, as it would lack argument licensing positions. This leaves head movement as the main vehicle of Inuit word-formation in P&T’s framework. Head movement analyses of complex word-formation such as P&T’s typically assume that syntactic structure is antisymmetric (Cinque 1999; Julien 2002), with morphologically complex words arising from exclusively left-headed structures.

Evidence for word-internal XPs: While NI has often been analyzed as involving roots, NI in Inuit can include nominalizers, as in (2), and adjectival modifiers, as in (2)-(3), indicating that the incorporated element is larger than a (category-neutral) root. Furthermore, a subset of NI verbs obligatorily incorporate arguments bearing oblique case and number (and, optionally, possessor marking), as in (4)-(5) (Johns 2007:561-2), indicating an even larger structure (KP/PP) has incorporated. Also, incorporation applies to proper names, as in (5), which have been argued to correspond to DPs (Longobardi 1994). Similarly, pronouns can incorporate, as in (6) (Hansard), which Déchaine & Wiltschko (2002) propose to be DP/φP/NP cross-linguistically. Moreover, Beach (2011:386) notes the possibility of incorporating one conjunct in a conjunction, as in (7), while the remaining conjunct is a full DP/KP. Assuming conjuncts share the same phrasal level of projection (or semantic types, Munn 1993) this further points to incorporates being larger than roots:

(2) uqalimaar-vi-ralaa-qaq-tugut
    read-NOMZ-small-have-DEC.1PL
    ‘We have a small library.’

(4) illu-ga-kku-u-vutit
    house-POS.1SG-VIALIS-go-INDIC.2SG
    ‘You’re going through my house.’

(6) ivvi-u-lauq-puq
    you-COPULA-PAST-INDIC.3SG
    ‘it was you’

(3) ighu-tsiava-ngua-qaq-tuq
    house-great-pretend-have-DEC.3SG
    ‘(S)he has a great pretend house.’

(5) Ottawa-min-ngaq-tunga
    Ottawa-ABLATIVE.SG-come-DEC.1SG
    ‘I’m coming from Ottawa.’

(7) tuktu-tu-ruma-junga palanggar-mil=*(lu)
    caribou-eat-want-DEC.1SG bread-obl.SG=*(and)
    ‘I want to eat caribou and bread.’
Additional evidence for clausal complexes containing XPs includes ‘stem-ellipsis’ in Arctic Quebec dialects, (8)-(9) (Dorais 1988:10), where contextually salient verbal roots can be elided. Lobell’s (1995) claim that ellipsis targets phrases conflicts with a head movement analysis of clausal complexes in which the elided constituent would constitute part of a complex head, (10):

(8) ...juujar-tuq
   -seem-dec.3sg
   ‘looks like...’

(9) ...jja-ngit-tuq
   -really-neg-dec.3sg
   ‘does not really...’

Similarly, the pro-form pi- can target a VP-sized constituent including objects or adverbial modifiers:

(11) nipikisaat-tu-mi(t) igla-gunnaq-tunga kisiani Miali pi-gunna-ngit-tuq
    quiet-dec-obl.sg laugh-can-dec.1sg but Mary(abs.sg) do-so-can-neg-dec.3sg
    ‘I can laugh quietly but Mary can’t #(laugh quietly).’

(12) kapi-gunta-tanga tuktu kisiani pi-gunna-ngit-tanga
    stab-want-dec.3sg.3sg caribou(abs.sg) but do-so-can-neg-dec.3sg.3sg
    ‘(S)he wants to stab the caribou but (s)he can’t #(stab it).’

The obligatory inclusion of the elided material in readings points to pi- being a phrasal pro-form.

Evidence for right-headedness: Cinque (1999) posits a universal functional hierarchy of adverbial functional projections which license phrasal adverbs or correspond to adverbial affixes in agglutinative/polysynthetic languages. Given the Head Movement Constraint (Travis 1984), such a system predicts a single order of adverbial affixes. However, Inuit exhibits variable ordering of adverbs inside clausal words with respect to each other and with respect to pairs of modals (examples not shown).

An antisymmetric analysis in which these adverbs are instead adjoined phrases in varying positions (Ernst 2002) would incorrectly predict them to be stranded at the right periphery by head movement. Conversely, a right-headed structure with phrasal adjuncts correctly captures their position (in situ).

Conclusion: An analysis of Inuit whereby polysynthetic words are right-headed and contain phrasal material supports Abels & Neeleman (2012) arguments against the LCA and their proposal that it is not syntactic structure that is asymmetric, but movement (i.e. no right-ward movement). Also, this paper adds further evidence for the existence of phrasal NI (Barrie & Mathieu 2012).

ALL-IN-ONE:
Generic inclusive subjects in Hungarian

1 Holmberg (2005, 2010) distinguishes four possible interpretations of generic null subjects cross-linguistically:
(i) inclusive pro, corresponding to one;
(ii) exclusive pro, corresponding to people;
(iii) arbitrary pro, corresponding to you;
(iv) specific pro, corresponding to we.

In Consistent Null Subject Languages (NSLs) 3SG generic inclusive subjects must not be null (Cinque 1988). In Partial Null Subject Languages (NSLs) 3SG generic inclusive subjects must always be null (Holmberg 2005, 2010):

Consistent NSL (Italian, D’Alessandro & Alexiadou 2003)
(1) Se *(si) e morti, non ci *(si) muove piu.
   if one is dead not RFL one move any more
   ‘If one is dead, one does not move any more.’

Partial NSL (Finnish, Holmberg 2010)
(2) Tässä pro_GEN/*i istuu mukavasti.
   here (one/*he) sits comfortably
   ‘One/*He can sit comfortably here.’

2 Hungarian seemingly patterns with Consistent NSLs in that it requires generic inclusive subjects to be lexical:
(3a) [CP Az ember_GEN mindig fél-0-0, ]
      the man always fear-PRES-3SG that
      a repülőgép]].
      the airplane
      ‘One always fears the airplane will crash.’

In matrix clauses where the 3SG subject has been dropped, 3SG pro cannot be interpreted as generic inclusive:
(4a) [CP Mindig fél pro_GEN/*, ]
      always fear-PRES3SG s/he/*one that
      a repülőgép]].
      the airplane
      ‘S/he/*One always fears that the airplane will crash.’

Generic inclusive si cannot normally serve as an antecedent for pro in Italian (Chierchia 1995):
(5) *Si, a detto che pro, vincentanno.
    si PERF said that (they) win.FUT3PL
    ‘People, say that they will win.’

The lexical generic inclusive DP az ember ‘the man’, however, can happily do so in Hungarian, irrespective of whether this antecedent is a nominative or a non-nominative generic inclusive subject, (6a)-(6b):
(6a) [CP Az ember_GEN nem készül ar-ra, ]
      the man not prepare-PRES3SG it-SBL that
      meg-hal-0 pro_GEN/*, ]
      PFX-die-PRES3SG (the man/*he),
      ‘One is not prepared (for it) that one/*he, will die.’
The syntactic properties of pro GEN isolate Hungarian both from Consistent NSLs and from Partial NSLs. In the former, 3SG generic inclusive null subjects (pro GEN) are absent, (1); in the latter, they do not need a lexical antecedent, (2). The Hungarian 3SG generic inclusive lexical subject az ember ‘the man’ is always free; pro GEN is a long distance null anaphor that must have a 3SG generic inclusive antecedent in the higher clause, (3)-(4). This division corresponds to the free genericity-inducing vs. the bound variable occurrences of one in English (Moltmann 2006, 2010).

All generic inclusive arguments must be in the scope of GEN with which they share the [+gen] feature. This explains why generic inclusive subjects have widest scope interpretation and why they do not display scope interaction with quantified DPs:

```
(10) [CP A legtöbb jó könyv-ET, [CP ami-t az ember GEN olvas-OTT],
    the most good book-ACC which-ACC the man read-PAST3SG
    nem maga GEN /*i írta].
    not self GEN /*i write-PAST3SG

    ‘Most good books that one has read were not written by one oneself.’
```
In this paper I examine the use of the focus particle *du* in wh-interrogatives in the Miyaran dialect of Yaeyaman (a southern Ryukyuan language spoken on Ishigaki and surrounding islands in Southwestern Okinawa). The paper proposes a semantic account of the following two distributional properties of *du*:

1. Argument wh-words in Miyaran require *du*-marking, and
2. Multiple *du*-marking is not allowed; Multiple wh-questions must have one and only one wh-word *du*-marked.

On the basis of data from declaratives and yes-no questions (not discussed here for reasons of space), I argue that the particle *du* is semantically vacuous, but spells out a syntactic focus feature that is licensed by the presence of a higher operator FOC. This higher FOC operator triggers LF movement of the co-indexed *du*-marked constituent, and it marks the material in its scope as GIVEN (Schwarzschild 1999). I follow Kratzer’s (2004) suggestion that GIVENness is *expressive* (Potts 2005). FOC marks its complement as GIVEN, with existential binding of the variable left by movement of the co-indexed *du*-marked phrase, according to the following denotation:

\[
\begin{align*}
\text{Expressive meaning:} & \quad [\text{FOC}_i \ p]^{\varepsilon} = \text{GIVEN}(\exists x \ [p]^{g[x/i]}) \\
\text{Regular meaning:} & \quad [\text{FOC}_i \ p] = [p]
\end{align*}
\]

I present morpho-syntactic evidence that the wh-interrogative construction in Miyaran necessarily contains the operator FOC, marking some part of the question as given. The requirement that single wh-arguments must be *du*-marked can then be derived semantically. When the wh-word is *du*-marked, we get a semantic calculation like the following:

\[
\begin{align*}
\text{Expressive meaning:} & \quad [\text{FOC}_i \ p]^{\varepsilon} = \text{GIVEN}(\exists x \ [p]^{g[x/i]}) \\
\text{Regular meaning:} & \quad [\text{FOC}_i \ p] = [p]
\end{align*}
\]

This gives a natural question interpretation and a natural GIVENness value. Without *du*-marking, we get the following:

\[
\begin{align*}
\text{Expressive meaning:} & \quad [\text{FOC}_i \ p]^{\varepsilon} = \text{GIVEN}(\exists x \ [p]^{g[x/i]}) \\
\text{Regular meaning:} & \quad [\text{FOC}_i \ p] = [p]
\end{align*}
\]

The question denotation is calculated as before, but because FOC applies to each element of the question set, we end up taking every possible answer as GIVEN. The infelicity of such a discourse move is responsible for the requirement that argument wh-words (which appear in the scope of FOC) are *du*-marked.
In multiple wh-questions, marking a single wh-word with *du* suffices to avoid the above problem. Depending on which wh-word is *du*-marked, we get different GIVENness values, which in turn are associated with different pragmatic effects. Marking the subject with *du* leads to the following derivation:

(4) \[ \text{taa-du taa-ba bari} \]
\[ \text{who-du who hit} \]
\[ \text{‘Who hit who?’} \]

Multiple *du*-marking is blocked, not only in wh-questions but more generally in the language. I argue that this is due to an expressive intervention effect (Kratzer 1999). GIVENness generates expressive semantic values, and expressive values cannot be bound by higher operators. Multiple *du*-marking would require binding of variables in the expressive dimension. This blocks multiple *du*-marking not only in wh-questions, but in declaratives as well, as illustrated below:

(5) \[ \ast \text{jon-du biru-du bari} \]
\[ \text{John-du Bill-du hit} \]
\[ \text{‘John hit Bill.’} \]

The above analysis of *du* suggests that requisite focalization of wh-constituents in questions is due to semantic pressures derived from the presence of a higher GIVENness-marking operator.

SELECTED REFERENCES
Search for a Minimal Agent Predicate Link preference in Recursive Agent Distribution Strategy for Embedded Clauses.

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Keywords: Experimental Syntax, Initial Control Preference, Agent-Predicate Links.

Summary:
The current paper reports two reading experiments in Bangla, carried out in order to ascertain whether a Minimal Agent-Predicate Association could be a the default preference that results in increase of processing complexity when the number of association links between any agent and the predicates of the sentence (which are the verbs either in matrix clause or embedded clause) increases. Bangla provides a more sensitized design for the tests by providing the location of the matrix verb (having control information) at the end of a sentence (like Japanese).

Introduction:
Studies in initial preference of control in Spanish show that the language processor seems to have a significant preference toward Object Control compared to Subject Control (Betancort et al. 2006) suggesting the preference for a structurally close antecedent for PRO. Japanese control sentences showed that in case of a retrieval task that followed stimulus control sentences, matrix clause objects rather than subjects are capable of being recalled and retrieved more easily and accurately as the antecedents for PRO (Sakamoto 2001) in both canonical as well as scrambled word order. The relevance of these inferences are tested in Bangla.

1. Experiment 1:
Processing difference of the two types of verb was measured, (for RT of button-press activity in a masked self-paced reading, in msec), for two types of sentences. One required a dropped pro at the subject position of the embedded clause and the other required a controlled PRO in the embedded clause.

(1) arun, ama-ke, bole-ch-e [provpro kal bikel-e gaRi bhaRa kor-e kolkata-y aS-be] FINITE EMBEDDED CLAUSE
   Arun 15S-Dat/Acc tell-pst-3rd [pro tomorrow evening-loc car rent do-ppl kolkata-loc come-fut(3rd)]
   Arun told me (that) he will come to Kolkata by car, tomorrow evening.

(2) arun, ama-ke, bole-ch-e [PROvpro kal bikel-e gaRi bhaRa kor-e kolkata-y aS-te] EMBEDDED CONTROL CLAUSE
   Arun 15S-Dat/Acc tell-pst-3rd [PRO tomorrow evening-loc car rent do-ppl kolkata-loc come-inf]
   Arun told me to come to Kolkata by car, tomorrow evening.

Comparison of RT at the last word showed a preference for V-te (Mean-RT: V-te (926.4 msec) < V-be (1118.0 msec), difference of mean = 191.6 msec, t-value > 2). The second experiment however was a pseudo-replication Sakamoto’s experiment using both canonical and scrambled word orders and measuring on-line RT at the last word (which is the control verb).

2. Experiment 2:
Difference in RT was measured at the two types of verb (in msec) at the end, in object Control and subject control sentences. Both canonical as well as scrambled word order were used.

(1) ami, o-ke, [PROvpro boi-Ta di-te] baddho kor-l-am OBJECT CONTROL
   1SgNom 3rd-Dat/Acc [PRO book-Cl give-inf] compel do-pst-1
   I compelled him to give someone the book.

(2) ami, [PROvpro o-ke boi-Ta di-te] baddho ho-l-am SUBJECT CONTROL
   1SgNom [PRO 3rd-Dat/Acc book-Cl give-inf] compel be-pst-1
   I was compelled to give him the book.

Results showed a preference for object controlled PRO (Mean-RT: kor-l-am (1627 msec) < ho-l-am (2113 msec), difference of mean = 486 msec, t-value > 2) across both word orders.
**Analysis and Discussion:**

Findings seem to indicate that this consistent on-line processing preference is actually due to a preference towards a minimal number of agent-predicate links, required to be associated by the processor and not any distance factor or grammatical function of an antecedent. (1.1) requires the processor to associate the subject 'Arun' as an agent of two predicates, 'bole-ch-e' as well as the embedded 'aS-be'. Likewise in (2.2), the subject 'ami' has to be associated as an agent of 'baddho ho-l-am' as well as the embedded 'di-te'. Thus, diverging associations emerge from the matrix agent to both matrix as well as embedded predicates. (1.2) however requires the subject 'Arun' to be associated with only one predicate, 'bole-ch-e' and the object 'ama-ke' with only one predicate, 'aS-te'. Likewise in (2.1), the subject 'ami' is to be associated with 'baddho kor-l-am' and 'oke' to be associated with the embedded 'dite'. Increase in the number of agent-predicate links seems to in-turn increase the processing cost (which is less in case of object control in both the experiments due to lesser number of agent predicate links). This paper argues for a **Minimal Agent Predicate Link** preference, discussing why neither structural factors nor grammatical function can be considered as strong criteria to explain the preference toward object control.

Word Count = 725

**References**


The Minimal Structure Principle and the Processing of Preposition Stranding
Naomi Enzinna and Ellen Thompson, Florida International University

Keywords: Syntax, Processing, Minimal Structure Principle, Preposition Stranding

From a corpus linguistics perspective, Gries 2002 claims that Preposition Stranding Constructions as in (1) “place a higher processing load on interlocutors compared to their pied-piped counterparts,…” ((2))…which is why they are cross-linguistically quite rare” (Wanner and Maratsos 1978; Hawkins 1999). On the other hand, from the point of view of generative approaches to language processing, the difference between (1) and (2) is one which is governed by the Minimal Structure Principle (MSP) in (3) (Burkhardt and Domahs 2009).

The MSP prefers the derivation resulting in (1), because it involves less structure – the movement of only the DP – than the derivation in (2), which involves movement of a larger phrase, the PP. Assuming that the MSP guides the processor on-line, the prediction is that (2) involves a larger processing cost than (1). The opposite is predicted by the traditional processing perspective.

We explore this topic by examining whether in monolingual English speakers there is a significant processing contrast between P-Stranding and Pied-Piping Constructions. We conducted a Self-Paced Reading Task experiment with thirty monolingual-English speakers, ages 18 to 65. In the experiment, subjects were presented with one-hundred sentences: fifty experimental and fifty filler sentences; of the experimental sentences, half include P-Stranding and half include Pied-Piping Constructions ((1)–(2)). After half of the total sentences, subjects were presented with a comprehension question regarding the sentence. All sentences included sentence-final optional modifiers in order to mitigate Wrap-up Effects. The test sentences were presented to subjects one-at-a-time on a computer screen. Once a subject finished reading a sentence, they pressed the space bar to be presented with either a question or new sentence. The time between the presentation of a sentence and the bar-pressing is the reading time.

Assuming that “reading times are reflective of processing difficulty” (Levelt 1989; Rayner and Sereno 1994), longer reading times for Preposition Stranding Constructions are predicted by the traditional processing-based view of these sentences, whereas the MSP approach predicts that Pied-Piping Constructions are more costly.

(1) Which country did he leave for?
(2) For which country did he leave?
(3) Minimal Structure Principle: Provided that lexical requirements of relevant elements are satisfied, if two representations have the same lexical structure and serve the same function, then the representation that has fewer projections is to be chosen as the syntactic representation serving that function (Boskovic 2009, Heck & Müller 2011).

The results are as in Chart A for Reading Times Per Sentence and Reading Times Per Character. A paired samples t-test revealed a significant difference in reading times between sentences with P-Stranding (M = 3951.54, SD = 1305.44) and Pied-Piping (M = 4742.15, SD = 1642.24), t(29) = -6.48, p < .001. These results are supported by per-character measures: a paired samples t-test revealed a significant difference in reading times per character between sentences with P-Stranding (M = 75.91, SD = 24.81) and Pied-Piping (M = 81.76, SD = 27.82), t(29) = -3.02, p < .005. This evidence suggests that the Minimal Structure Principle is operative in the on-line processing of sentences

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The (anti-)locality of movement: the case (but not Case) of Kaqchikel Agent Focus
Michael Yoshitaka Erlewine, Massachusetts Institute of Technology

Keywords: Agent Focus, syntactic ergativity, multiple extraction, anti-locality

I present a new characterization of the Agent Focus (AF) construction in Kaqchikel (Mayan, Guatemala) based on original fieldwork. AF is a change to transitive verb morphology that occurs when the verb’s ergative argument undergoes A-extraction, and is attested in many Mayan languages (Aissen, 2011; Stiebels, 2006). Previous descriptions have stated that AF is obligatory whenever an ergative argument is A-extracted. I demonstrate instead that AF in Kaqchikel occurs iff the ergative argument moves to an immediately preverbal position.

I argue that Kaqchikel AF must be characterized through locality restrictions on extraction and agreement, rather than through Case, as recently proposed (Coon et al., 2011; Assmann et al., 2012). This finding has serious implications for the theory of Mayan AF as well as for extraction asymmetries in syntactically ergative languages in general.

Novel evidence from multiple extractions: In (1), the wh-word achike and existential k’o have both A-moved to preverbal positions. AF disambiguates between a subject existential reading (1a) and a subject wh reading (1b). Crucially in (1b), the subject achike has A-moved and yet the verb remains in non-AF form.

(1)  a. achike k’o xtz’et-ö?
    who someone saw-AF
   ✓ ‘Who did someone see?’
   * ‘Who saw someone?’

I show that existentials undergo A-movement, and that A-operators in non-immediately-preverbal positions (e.g. achike in (1)) also undergo A-movement, rather than being base-generated high. A-movement is diagnosed through relative clause and adjunct islands. (Data omitted.)

Thus in (1b), the subject achike has been A-extracted, yet the verb is not in AF. This is unexpected under all previous descriptions of AF in Mayan languages, which describe AF as obligatory in all cases where the ergative subject is extracted. Instead, examples with various combinations of A-operators yield the following robust conclusion:

(2) Kaqchikel AF occurs iff an ergative argument moves to an immediately preverbal position.

Proposal: AF is a strategy for avoiding the violation of an anti-locality constraint which bans movement that is too close (Abels, 2003; Grohmann, 2003). Movement of the ergative subject from Spec,TP to Spec,CP is ungrammatical (3). (Base word order in Kaqchikel is VOS; I assume the ergative subject is a right specifier of TP.) To avoid the anti-locality violation, the AF morpheme is added as a last-resort to project additional structure between the ergative subject’s base position and landing site (4).

(3) * [cp subject [ C [TP [ VP T ] t ] ]

(4) ✓ [cp subject [ C [ AF [TP [ VP T ] t ] ] ]

This explains the lack of AF when another A-operator moves to the CP periphery before the subject:

(5) ✓ [cp subject Op [ C [TP [ [VP ...t... ] T ] ] t ]
**Supporting evidence from adverbs:** The proposal here predicts that ergative subject extraction can also occur without AF morphology if additional structure is projected above TP. This prediction is borne out. In (6a), the subject relative requires AF on the verb ‘eat.’ When a preverbal adverb nojel mul ‘always’ is introduced in (6b), AF becomes unnecessary and ungrammatical. The addition of the adverb makes movement of the ergative argument no longer too local (7).

(6) a. [ri achin ri ntj-*(ö) wäy] xwär b. the man RC eat-*AF) tortilla slept ‘[The man who eats tortillas] slept.’

(7) [CP subject [C [adverb [TP [VP T] t]]]

**Previous approaches:** Coon et al. (2011) and Assmann et al. (2012) argue that the object cannot receive absolutive case when the ergative argument is extracted, and AF is a last-resort absolutive case assigner. Both incorrectly predict AF to be required whenever the ergative argument is extracted and there is an object needing absolutive case. In (8), the subject and indirect object are extracted from a ditransitive verb. AF is ungrammatical in (8), even though there is an absolutive argument, because the subject did not move to an immediately preverbal position.

(8) nquqaqa [achike (kamü) k’o achoj che xutäq-(ö) ri sikibuj] wonder who Q to someone sent-AF) the book ‘I wonder [who sent the book to someone]’

The Case-driven approaches are also unable to account for contrasts such as (6), as the addition of an adverb should not affect DP-licensing.

References:
Domain Readings of Japanese Head Internal Relative Clauses
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Keywords: syntax/semantics, head-internal relative, maximal informativeness, trace conversion

The structure and interpretation of Head-Internal Relative Clauses (HIRC) differ from head-external variants, and these differences are not yet well understood. We present a careful study of the interpretation of Japanese HIRC with quantificational heads, and show novel evidence that the HIRC corresponds to the domain of the quantifier, rather than its witness set. We propose that HIRC denote the maximally informative set which can be the domain of the HIRC’s head quantifier. Sources of inter-speaker variation will also be discussed.

New evidence from domain readings: Consider the HIRC in (1) (head in italics) in context (2), where there are two salient groups of apples: Ayaka peeled half of the apples in group A, but none in group B.

(1) Junya-wa [Ayaka-ga hanbun-no ringo-o mui-ta]-no-o zenbu tabe-ru.

Junya-TOP Ayaka-NOM half-GEN apple-ACC peel-PST-NO-ACC all eat-NPST

Literally “Junya will eat all of [Ayaka peeled half of the apples].”

a. ‘⇒ Junya will eat 6 apples.

b. ‘⇒ Junya will eat 3 apples.

(2) Context:

The entailment patterns (1a,b) require that Junya eat all of the group A apples, not just those that Ayaka peeled. Thus, the HIRC’s extension corresponds to the domain of apples over which Ayaka peeled half of them is satisfied, rather than the witness set, i.e. the half that were peeled.

Proposal: For the HIRC in (1), an empty type e operator is adjoined to the domain of the quantifier ‘half of the apples’. This operator moves to create a predicate P = “λx. Ayaka peeled [half of the [apples in x]].” A definite article sits atop the HIRC and returns the maximally informative element satisfying this predicate: x is the most informative element satisfying P if the proposition P(x) entails P(y) for all y satisfying P (von Fintel, Fox, Iatridou, 2012). This yields the set of six apples in group A.

Note that the predicate P is also true of sets that include non-apples. Maximal Informativeness ensures that the referent of the HIRC is a set of apples: because non-apples can be added or removed from X without affecting the truth of P(λx), the maximally informative set satisfying P will be a set of apples. The traditional Link-style maximality semantics for the definite (instead of maximal informativeness) incorrectly yields a set of both apples and non-apples for the HIRC.

Previous approaches: Recent approaches to Japanese HIRC make incorrect predictions for the interpretation of (1).

Hoshi (1995) and Shimoyama (1999) propose that HIRC are interpreted as E-type pronouns. But example (3) shows that an E-type pronoun can refer to the domain of quantifiers (3b) or their witness set (3a). Thus the E-type analysis incorrectly predicts both readings to be possible in (1).

(3) Only [half of [the students]]i turned in papers…

a. ‘⇒ …and theyj will all pass.

b. ‘⇒ …but theyi will still all pass.
The event-semantics approach (Grosu, 2010; G&L, 2011) associates the extension of the HIRC with a particular thematic role of the event, e.g. Theme in (1). This approach incorrectly predicts the HIRC to be the set of apples that were actually peeled (three apples, (1b)).

**Results:** Our proposal leaves the quantifier within the HIRC, but does move a null operator that restricts the quantifier’s domain. Thus we predict the island-sensitivity of HIRC (Watanabe, 2003; Grosu, 2010; G&L, 2011), while maintaining that the head does not take scope within the matrix clause (Shimoyama, 1999).

We further predict that if a HIRC’s head is below negation within the relative, it is ruled out (G&L, 2011; Hoshi, 1995):

(4) *(Junya-wa [Ayaka-ga ringo-o muka-nak-atta]-no-o tabe-ru.
     Junya-TOP Ayaka-NOM apple-ACC peel-NEG-PAST-NO-ACC eat-NONPAST
     Literally “Junya will eat [Ayaka didn’t peel apples].”

Because the proposition $P = \forall x. \neg(\exists y \in x, y \text{ apple, and Ayaka peeled } y)$ is downward-entailing, and assuming an infinite number of apples, $P$ does not have a maximally informative member, so it will violate the uniqueness property of the definite article.

**Theoretical implications:** We note that a variable restriction on a quantifier’s domain, with binding of this variable from above, is conceptually equivalent to the Variable Insertion step of Trace Conversion (Fox, 2002). Recasting our analysis in terms of Variable Insertion would eliminate the need to base-generate a null operator. We discuss this connection in light of recent work on the interpretation of traces and reconstruction under a Copy Theory of movement and the theory of AGREE (Chomsky 2000).

PARASITIC ELLIPSIS
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This paper discusses a case of parasitic ellipsis in Russian: ellipsis of a complement of P that depends on VP ellipsis for grammaticality. The parasitic nature of this ellipsis is captured by assigning the P head an ellipsis-licensing feature E that is interpretable but unvalued. This feature is valued by Reverse Agree under c-command by the interpretable and valued E-feature that licenses the VP ellipsis.

It is well known that Russian PPs do not allow extraction of the complement of P, for reasons of anti-locality (Abels 2003); moreover, a lot of Russian P’s are clitics (King 2005). A less discussed fact is that under some conditions the complement of non-clitic Ps in Russian can be elided. Although this ellipsis has been noticed (Gribanova 2009 mentions a couple, for example), conditions which sanction it remain unexplored. This paper concentrates on one such preposition, bez ‘without’ and argues that the ellipsis in question is parasitic on clausemate VP-ellipsis.

Ellipsis of the complement of bez ‘without’ occurs optionally in reduced conjuncts with the meaning of contrastive focus. Consider some of the ellipsis possibilities for the second conjunct in (1a). The whole VP can elide (1b); the PP can escape the ellipsis site (1c). The contrast in acceptability between (1d, e) shows that ellipsis of the complement of bez in crucially dependent on VP ellipsis – when the verb and direct object survive ellipsis, the complement of P cannot be elided (1d). Crucially, if the verb and its direct object do not survive ellipsis, ellipsis of the complement of bez is fully acceptable (1e).

(1) a. Koška s’ela kolbasu s udovolʼstviem, a sobaka s’ela kolbasu [pp bez [np udovolʼstviya]].
   The cat ate sausage with pleasure but dog ate sausage without pleasure.
   b. a sobaka - net.
   c. a sobaka - bez udovolʼstviya.
   d. *a sobaka s’ela kolbasu [pp bez [np udovolʼstviya]].
   e. a sobaka – [pp bez [np udovolʼstviya]].

To capture the parasitic nature of the ellipsis in (1e), I extend Pesetsky and Torrego’s (2007) separation of interpretability and valuation of features to Merchant’s (2001) E-feature. I propose that in Russian, a contrastively focused P may carry an interpretable unvalued E-feature. This means that ellipsis of the complement of a contrastively focused P in Russian is possible but the interpretation of the resulting structure is not always accessible. It is only accessible if the E-feature on the P head is valued. The required valuation happens under c-command by the interpretable valued E-feature of the lower Foc head, which I assume to license VP ellipsis. The relevant licensing mechanism is Reverse Agree (Wurmbrand 2012 and references cited there). Partial derivations for (1c,d, and e) are, respectively, (2a,b, and c).

(2) a. \[\text{FocP sobaka [TP T} \text{Foc Foc [VP s’ela kolbasu [pp bez udovolʼstviya]]} \rightarrow \]

b. \[\text{FocP sobaka [TP T} \text{Foc Foc [VP s’ela kolbasu [pp bez udovolʼstviya]]} \rightarrow \]


In (2a), the preposition has an uninterpretable focus feature and is inside the ellipsis site. In Russian, movement for focus is not strictly obligatory, uFoc can be checked either by Agree or by Revrs Agree; in this case, the focused phrase moves to escape the ellipsis site, and the sentence is acceptable. In (2b), the P has the feature i, uvalE, but the PP is not within an ellipsis site, so this feature cannot be valued. Ellipsis takes place regardless, and the result is ungrammatical. Finally, (2c) is an example of successful parasitic ellipsis: P has the features uFoc and i, uvalE and is inside an ellipsis site. Its unvalued E-feature acts as a probe and is valued by the i, uvalE-feature on Foc by Reverse Agree. Next, the PP moves to FocP to escape the ellipsis site, and the E-features on Foc and P instruct PF to not spell out their complements. The acceptable sentences are grammatical, and the unacceptable sentence is ungrammatical, as required.

In this paper, I have provided an account of a case of parasitic ellipsis and have shown that it can be captured in a syntactic framework that combines feature valuation under Reverse Agree and Merchant’s (2001) theory of ellipsis.

References:
Italian has a typical inventory of verb classes encoding causative or change of state semantics. Nonetheless, Italian, like other Romance languages, is famously less flexible than ‘satellite-framed’ languages in change-of-state frames involving manner of motion or any other resultative predication (Talmy 1985, 2000). Typical analyses ascribe a deficiency of some sort (either lexical or syntactic) to Italian-type languages, rendering them unable to realize the full range of structures available to English-type languages. We show that the manner-of-motion parameter is much simpler than previously thought: Italian simply requires head-movement within the VP domain, while English does not.

Italian does not implement a general ban on verbal argument structure flexibility; many verb alternations, such as the locative alternation, are acceptable:

(1) Gianni ha caricato la paglia sul camion/il camion con la paglia
Gianni has loaded the hay on the truck/the truck with the hay

There are two existing families of accounts of the parametric difference in manner-of-change-of-state or location verbs: "P-deficiency" approaches and "Manner-deficiency" approaches. Proponents of the P-deficiency approach posit a lexical deficiency in languages like Italian (Higginbotham 2000, Folli 2001, etc.) The Manner-deficiency approach claims that satellite-framed languages allow a special structure-building operation, unavailable in verb-framed languages, whereby a Manner element is added to the verbal projection (Snyder 1995, Harley 2005, McIntyre 2004, Mateu 2002, 2008).

Both deficiency approaches face difficulties. To say that Italian lacks a Path or Result component in its argument structure seems incorrect, given the many change-of-state/location verbs which must use an element. Further, the lack of a single preposition is inadequate to account for the absence of alternations (adjectival resultatives, e.g.) that don’t require a preposition. On the other hand, the idea that Italian is deficient in its inventory of syntactic operations is equally peculiar (as is the idea that there is a special structure-building operation for just this).

Instead, we place the manner-of-motion parameter squarely within the standard family of head-movement parameters. We adopt a small clause analysis of change of state (Hoekstra & Mulder 1990), and follow Ramchand (2008) in assuming that the small clause is the projection of a Res(ult) category below v°. In change-of-state verbs like open/aprire, the root of the verb, vOPEN or vAPRI- is base-generated in Res°. Our proposal is simply that Res°-to-v° movement is mandatory in Italian, but not English.

We assume Matushansky’s (2007) theory of head-movement: the head of the complement adjoins to the root node, then undergoes morphological lowering/confloation to the head of the tree. This, like other movement, is driven by uninterpretable features on a Probe as it enters the derivation (Chomsky 2000).

In Italian, change-of-state v° has an uninterpretable Res feature [uRes*]. Because it is a ‘strong’ (EPP-containing) feature, checking [uRes] requires overt head-movement. Res° adjoins to the v’ projection immediately after v° is Merged, then lowers and m-merges with the head v°. This means that every Italian change-of-state/location verb must ‘lexicalize’ (i.e. incorporate) the result-denoting predicate. In English, in contrast, change of state/location v° can check [uRes] in situ, allowing Res° to remain low. In that case, another X° can be externally Merged to v’, in the canonical adverbial position. This adjoined adverbial—a manner modifier—can undergo lowering and m-merger, just as in head-movement. The verb then ‘lexicalizes’ Manner, rather than Result. If Res° failed to undergo internal Merge in
Against deficiency-based typologies
Manner-alternation parameters in Italian and English

Italian, in favor of external Merge of a manner X°, the derivation would crash due to the unchecked [uRes].

This is illustrated in the following Material/Product alternation. The verb alternates between a manner-of-creation verb (2a) and a result verb (2b). But the third alternation, a manner-of-change-of-state, is impossible in Italian:

(2) a. May carved a doll (from the wood)
   May ha intagliato una bambola (da un pezzo di legno)
b. May carved the wood
   May ha intagliato il legno
c. May carved the wood into a doll
   *May ha intagliato il legno in una bambola

The account requires only independently motivated operations: external and internal Merge, plus cyclic application of m-merger. Indeed, Matushansky’s mechanism predicts m-merger following external as well as internal Merge. It explains why Manner adjunction in Italian occurs in non-resultative contexts, as in verbs of creation: if the v° does not select a ResP, there is no uninterpretable [uRes*] feature requiring checking.

In short, change-of-state/location structures, with Path semantics, are well-formed in Italian, but the checking requirement on change-of-state v° forces head-movement from the result-specifying small clause to v, so secondary resultatives cannot occur. The connection to modification adjunction suggests an extension to the correlation with compounding discovered by Snyder (2001).
A New Approach to Tough-Constructions

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Keywords: tough movement, stack, doubling constituent

Introduction: The existing literature generally assumes that tough movement (TM) involves wh-movement (Chomsky 1977, 1981; Hornstein 2001, Hicks 2009, etc.). A disadvantage of wh-movement-based accounts is that ‘tough’ in (1a) takes an interrogative complement, but not in (1b).

(1) (a) Linguists are tough to please.
(b) It is tough to please linguists. (Hicks 2009:535-536)

We propose that there is no wh-movement involved in TM, thus providing a uniform account of (1a-b), whereby ‘tough’ only takes one type of complement, and, unlike existing analyses, there are no complications in dealing with theta-role assignment or A/A’-movement.

Proposals: We propose a computational model of syntax that employs a stack mechanism, specifically to house syntactic objects (SOs) that contain uninterpretable/unvalued features. Our stack-based architecture is motivated both by computational efficiency concerns, i.e. to minimize search, and explanatory power, i.e. blocking effects. We propose there is no search in ‘probe-goal search’; a probe must agree with whatever is on the top of the stack. SOs stacked previously cannot become visible (for agreement) until Agree applies to the top SO, fully valuing its unvalued features. The fully-licensed top SO is popped off the stack, exposing the next SO with unvalued features.

The stack is populated at the time of first Merge. For example, when V and a direct object DO are merged, DO, with unvalued Case, is pushed onto the stack. When transitive v* is merged with VP, probe-goal search reduces to inspecting the top of the stack, which will be DO. Agree(v*,DO) obtains and the fully-licensed DO is removed from the stack.

Following work by Kayne (2002) and Hicks (2009), we propose that TM involves the doubling constituent (DC) structure in (2). It contains a null pronominal, which we label as pro, and a co-referenced r-expression. The pro and r-expression share a theta-role (see Hicks 2009).

(2) [D pro1 r-expr1]

Derivations: In the basic TM construction (3), when the DC is constructed, ‘John’, since it has unvalued Case, is pushed onto the stack (4a). When T is Merged (4b), T establishes an Agree relation with ‘John’, resulting in ‘John’ becoming fully licensed and popped off the stack (4b).

(3) John is easy to please. (Chomsky 1977)

(4)

<table>
<thead>
<tr>
<th>Merge</th>
<th>Stack</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) [D pro1 John]</td>
<td>John1</td>
</tr>
<tr>
<td>(b) [T John is easy [C PRO to PRO v* please [D pro1 John]]]</td>
<td></td>
</tr>
</tbody>
</table>

In (5-6), adapted from Chomsky (1977), replacing the bold phrases in (5-6a) with wh-phrases produces the ill-formed (5b), but the well-formed (6b). We predict this contrast without the requirement that TM involve wh-movement.

(5) (a) The violin is easy to play the sonata on
    (b) *What sonata is the violin easy to play on?
(6) (a) The sonata is easy to play on this violin.
(b) **What violin** is the sonata easy to play on?

In (5b), when the v*P is completed (7a), ‘what sonata’ is at the top of the stack above ‘the violin’, reflecting the bottom-up Merge order. Both DPs are in the stack because they have uninterpretable/unvalued features. When T is Merged, (7b), ‘what sonata’, which has Case (as well as an uninterpretable wh-feature), blocks ‘the violin’ from being visible to T, and the derivation crashes.

\[
\begin{array}{|c|c|}
\hline
\text{Merge} & \text{Stack} \\
\hline
(7a) & [v* \text{ PRO v* play } [P [\text{what sonata} \text{ on } [D \text{ pro} \text{1} \text{ [the violin]}]]]] \quad [\text{what sonata}, \text{ [the violin]}] \\
(7b) & [T \text{ is easy } [C \text{ PRO to PRO v* play } [P [\text{what sonata} \text{ on } [D \text{ pro} \text{1} \text{ [the violin]}]]]]] \quad [\text{what sonata}, \text{ [the violin]}] \\
\hline
\end{array}
\]

(6b) is successful because ‘what violin’ is initially Merged lower than ‘the sonata’. When the v*P is completed, (8a), ‘the sonata’ is at the top of the stack above ‘what violin’. When T is Merged (8b), it establishes a successful probe-goal relation with ‘the sonata’. Then C undergoes a successful probe-goal Agree relation with ‘what violin’ (8c).

\[
\begin{array}{|c|c|}
\hline
\text{Merge} & \text{Stack} \\
\hline
(8a) & [v* \text{ PRO v* play } [P [D \text{ pro} \text{1} \text{ [the sonata]} \text{ on } [\text{what violin}]]]] \quad [\text{the sonata}, \text{ [the sonata]}] \\
(8b) & [T \text{ [the sonata]} \text{ is easy } [C \text{ PRO to PRO v* play } [P [D \text{ pro} \text{1} \text{ [the sonata]} \text{ on } [\text{what violin}]]]]] \quad [\text{what violin}] \\
(8c) & [C \text{ [what violin] C+is } [T \text{ [the sonata]} \text{ is easy } [C \text{ PRO to PRO v* play } [P [D \text{ pro} \text{1} \text{ [the sonata]} \text{ on } [\text{what violin}]]]]] \quad [\text{what violin}] \\
\hline
\end{array}
\]

**Conclusion:** Hicks (2009) develops a DC analysis of TM phenomena that, while based on Kayne’s (2002) analysis of Binding facts, does not actually account for Binding facts. By contrast, we will demonstrate that our stack-based DC approach not only predicts typical TM facts, but also extends to account for typical Binding phenomena.

**References:**


wordcount: 750
On Licensing of Floating Indeterminate Pronouns in Japanese

Key words: Discontinuous constituents, unaccusativity, Japanese, experimental syntax

Shin Fukuda and Maria Polinsky

Introduction: Miygawa (1989) observes that unaccusative subjects are better licensors of VP-internal floating quantifiers (FQs) (1a) than unergative subjects (1b). He accounts for the contrast by assuming that (i) FQs and their non-floating equivalents are transformationally related and (ii) unaccusative subjects are VP-internal arguments while unergative subjects are VP-external. Supporting arguments for this proposal come from anaphora binding, quantifier scope and weak crossover (Yamashita 2001 and Fitzpatrick 2006). In this study, we examine a similar paradigm with indeterminate pronouns. They also float and have a similar distribution as quantifiers (cf. (1), (2)) but have not received an adequate analysis.

(1) a. Gakusei-ga ohisu-ni san-nin student-NOM office-to three-CL ki-ta come-PST
   ‘Three students came to the office.’
   b. #Gakusei-ga geragerato san-nin student-NOM loudly three-CL waraw-ta laugh-PST
   (‘Three students laughed.’)

(2) a. Gakusei-ga ohisu-ni dare-ka student-NOM office-to who-Q ki-ta come-PST
   ‘Some student(s) came to the office.’
   b. #Gakusei-ga geragerato dare-ka student-NOM loudly who-Q waraw-ta laugh-PST
   (‘Some student(s) laughed.’)

Our proposal is that floating indeterminate pronouns (FIPs) have the same grammar as FQs. We tested this hypothesis with two acceptability judgment experiments. The results support the proposal; unaccusative subjects are shown to be better licensors of VP-internal FIPs.

Experiment 1: Experiment 1 examined licensing of FIPs (dare-ka ‘someone’ and nani-ka ‘something’) by unaccusative and unergative subjects with two different interveners: cause-PPs (e.g. kaji-de ‘because of a fire’) as VP-external interveners and locative-PPs (e.g. kyositu-de ‘in a classroom’) as VP-internal interveners. FIPs with cause-PPs can be VP-external while ones with locative-PPs are necessarily VP-internal. We had three factors: (i) VERB TYPE (unaccusative or unergative), (ii) FLOATING (FIPs and the associates adjacent or separated by an intervener) and (iii) INTERVENER (locative or cause PP). We used five unaccusative and unergative verbs. 78 native speakers participated in a rating study with a 1-7 scale.

(3) a. Subject nani-ka/dare-ka cause-PP/locative-PP unaccusative/unergative verb
   b. Subject cause-PP/locative-PP nani-ka/dare-ka unaccusative/unergative verb

The hypothesis predicts a significant difference between (3a) and (3b) only with unergatives with locative-PPs, since only unergative subjects are assumed to be structurally higher than locative-PPs. No contrast is predicted with cause-PP regardless of the verb type since cause-PPs are higher than both unergative and unaccusative subjects. The results were consistent with these predictions.
FLOATING was significant with unergatives with locative-PPs (p = .01) but not with unergatives with cause-PPs (p = .23) (Fig. 1) or unaccusatives in general (cause-PPs: p = .25; locative-PPs: p = .23) (Fig. 2). The experiment revealed two additional issues: (a) animacy and (b) compatibility. (a) Unergatives are compatible only with the animate dare-ka due to their selectional restrictions while unaccusatives are compatible with both, which means that effects of animacy on FIP licensing need to be addressed. (b) The acceptability of unaccusatives with locative-PP and cause-PPs were significantly different (p = .0002), suggesting a compatibility issue.

**Experiment 2:** Experiment 2 addressed the two outstanding issues from Experiment 1. The design was the same except (i) six unaccusative and unergative verbs were used, (ii) various manner and temporal adverbs were used as VP-internal and VP-external interveners, respectively, to address the compatibility issue, and (iii) the six unaccusatives were divided into two groups with three of them co-occurring with nani-ka and the other three with dare-ka (added ANIMACY as a new factor). 58 native speakers participated. The results show that FLOATING was significant regardless of VERB TYPE and INTERVENER. Within unaccusatives, ANIMACY was also significant. The pair-wise comparisons between the two interveners revealed that INTERVENER was significant within unergatives (p = .006) (Fig. 3), almost significant within unaccusatives with the animate dare-ka (p = .07) (Fig. 4) and not significant within unaccusative with the inanimate nani-ka (p = .22) (Fig. 5). In other words, the difference between the two interveners was significant only with unergative verbs. These results are consistent with Experiment 1 as they confirm that unaccusative subjects are better licensors of VP-internal FIPs.

However, these results also reveal effects of animacy on FIP licensing within unaccusatives: Unaccusatives with the animate dare-ka showed a trend similar to unergatives but with a larger variability in acceptability judgments (cf. Fig. 3, Fig. 4). Therefore, our results suggest that FIP licensing is sensitive to both syntactic (the unaccusative/unergative distinction) and non-syntactic (animacy of IPs) factors as has been argued to be the case with FQ licensing (Nakanishi 2008). (737 words)

On Covert Modality in German Root Infinitives
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It is well known (cf., e.g., Fries 1983), that (adult) German bare root infinitives (bRI) can be used as directives, (1a), or optatives, (1b).

1. a. **Bitte Aufpassen!**  
   "(Please,) Pay attention!"  
   b. **Ach, einmal Rom besuchen.**  
   "Oh, to visit Rome one day."

While earlier approaches postulated a construction-specific covert modal (cf. Fries 1983), Reis (1995; 2003) made the ambitious proposal to derive covert modality in bRI via "minimal pragmatic enrichment." The intuition behind that proposal is that, on the assumption that infinitives are in some sense referentially "defective" (cf., e.g., Huntley 1982; 1984) – restricted to "irrealis" readings related to "outcomes" (Ginzburg & Sag 2000), i.e., goals and purposes etc. –, their placement in root position requires modalization to guarantee interpretability.

This presentation will be devoted to elaborating on the above sketch in three steps: (i) "Minimal pragmatic enrichment" will be formalized within the framework of "transparent logical form" developed by von Stechow (1991; 1993; 2003; 2004). (ii) An extension of this system to interrogative root infinitives (iRI) will be provided and shown to be problematic. (iii) An alternative approach to both bRI and iRI in terms of "illocutionary semantics" (Truckenbrodt 2004; 2006; Zaefferer 2001) will be shown to lead to similar (dis-)advantages.

(i) According to von Stechow (2003; 2004), clauses come with feature-bearing world variables. Free variables are interpreted deictically (von Stechow 2004:431). The feature indicative "restricts the denotation of the world variable to the actual world" (p.435). Radically simplified, LF and logical translation of the declarative clause **Hans passt auf** ("Hans is paying attention") looks as follows:

1. \[ w^{\text{ind}} [ \text{VP Hans aufpasst} ] \] ⇔ PAY.ATTENTION(w₀,h)

Referential "defectiveness" of infinitives can now be understood as implying that a free world variable bearing the feature – fin cannot be deictically interpreted. The assumption then is that, as such, infinitives in root position are uninterpretable, as shown in (2):

2. \[ w^{\text{fin}} [ \text{VP PRO aufpassen} ] \] ⇔ \text{x}

The situation in (2) can, however, be salvaged by appeal to the central mechanism employed by von Stechow (2004): "features of semantically bound variables are deleted and therefore not interpreted at LF" (p.431). Thus, "minimal pragmatic enrichment" can be brought about by existential closure (cf., e.g., Heim 1988:II.2; von Stechow 2004:4.2.3) as shown in (3). (Deleted features are crossed out.)

3. \[ \exists w [ w^{\text{fin}} [ \text{VP PRO aufpassen} ] ] \] ⇔ \exists w.PAY.ATTENTION(w,arb)

Of course, existential quantification over a world variable amounts to the (basic) semantics of a possibility modal, i.e., \[ \exists w.PAY.ATTENTION(w,arb) \iff \Diamond \text{[PAY.ATTENTION(w,arb)]} \] (cf. Gamut 1991:123). (Depending on context, accommodation of backgrounds and strengthening via exhaustification (Kaufmann 2012:184ff.) may be required to get fully adequate interpretations.) The embedding of infinitives is equally straightforward, as this would involve \[ \lambda \text{-binding } w^{\text{fin}} \] (von Stechow 2004:5.1.2) accompanied by feature deletion again.

(ii) Reis (2003) assumes that "minimal pragmatic enrichment" is equally responsible for the modal interpretation (cf. Bhatt 2006) of iRI like **Wem vertrauen?** "Who to trust?". However, assuming a standard Hamblin/Karttunen-style semantics for interrogatives, \[ w^{\text{fin}} \] will have to be \[ \lambda \text{-bound} \] to derive a propositional object, as shown in (4) (cf. von Stechow 1993:74):

4. \[ \lambda p [ \text{cp wem [ } \lambda x [ [ c^p ?(p) ] [ \lambda w [ w^{\text{fin}} [ \text{VP PRO [ } x \text{ vertrauen } ] ] ] ] ] ] \]  
   \[
   \Rightarrow \lambda p [ \exists x [ \text{PERSON}(w₀,x) \land p = \lambda w.\text{TRUST}(w,arb,x) ] ]
   \]
As a result, existential closure will not be applicable, whence (4) will – inadequately – ask about who one actually trusts instead of who one should or could trust.

(iii) An alternative approach to bRI is sketched by Truckenbrodt (2006:269): Their interpretation is essentially guaranteed by a bare volitional illocutionary operator (cf. Zaefferer 2001) expressing speaker volition:

(5) \[
\text{[ PRO aufpassen ] } \supset \text{ WANT(S, PAY:ATTENTION(arb))}
\]

According to Truckenbrodt, wh-movement is responsible for enriching the illocutionary meaning by an epistemic component related to common knowledge of speaker and addressee. An iRI like Wem vertrauen? would thus get translated as follows (cf. also Truckenbrodt 2004):

(6) \[
\text{WANT(S, KNOW(S&A, } \lambda x[ \text{PERSON}(w,o,x) \land \text{p = } \lambda x.\text{TRUST}(w,ar,b, x) ] )}
\]

This roughly says that the speaker aims at common knowledge of speaker (S) and addressee (A) concerning (the answer to) the question who one trusts. However, given insertion of the epistemic component, the volitional operator WANT no longer "modalizes" the infinitival proposition. Thus, the desired question as to who one should or could trust will not be derived.

References:

Sonority as a primitive: Evidence from phonological inventories

Keywords: phonological inventories, typology, sonority

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Introduction: Previous arguments for sonority as a grammatical primitive have come largely from synchronic phonology and natural class structure. This paper examines sonority as a determining factor in phonological inventory size and structure. Sonority has an effect in determining how many segments will occur in an inventory in a given class of sounds (voiced fricatives, etc.). This predictive power is greatest between sonority classes which are closest to each other along the hierarchy except along the sonorant/obstruent and consonant/vowel boundaries.

Proposal: This paper argues that inventories pattern with distinct classes of obstruents, sonorants, and vowels which do not make reference to each other in the creation of inventory structure. This provides evidence for sonority as a primitive as it is employed for the organization of phonological systems.

Analysis: P-base (Mielke 2008) was consulted for data and each language was scanned for the number of segments in each sonority class. The sonority classes determined by Parker (2002) were used. Here they are represented by the symbols: /t/, /s/, /d/, /z/, /n/, /l/, /r/, /j/, /i/, /e/, /u/. The number of segments in each class was compared with the number of segments in all other classes in each language.

Consider the circled point in the graph on the left. This point denotes a correlation where r = 0.63 between the number of voiced fricatives and the number voiced stops in inventories. The correlations between the number of voiced fricatives and the number of segments in other obstruent classes gradually decrease with sonority distance. However, when the sonorant/obstruent boundary is crossed, there is no correlation even though the classes of voiced fricatives and nasals are close in sonority. The data for each sonority class (as in the graph on the
left) was consolidated to the graph on the right, displaying the high correlations within the classes of obstruents, sonorants, and vowels, and lower correlations outside these boundaries.

The vowels pattern distinctly from all consonants. The sonorant consonants, while closer to vowels in sonority are no better correlated with the vowels in class size than the obstruents. Even consonants which share features with vowels (glides and high vowels, for example) do not show any interaction. Also, the relation of total vowel inventory size to total consonant inventory size is less significant than previously thought. Maddieson (1984) reported a slight positive correlation between the sizes of consonant and vowel inventories \( (r = 0.38) \). This data was taken from the 317 language version of the UPSID database. When the same tests were run with P-base (628 varieties of 549 languages) the correlation was found to be insignificant \( (r = 0.156) \) so we can effectively conclude that the sizes of consonant and vowel inventories are not systematically related in phonological inventories.

**Rejecting a plausible alternative:** These results cannot be attributed to feature economy effects (mutual attraction of segments which share features (Clements 2003)) since the feature \([+\text{sonorant}]\) induces more drastic effects than other features (voicing, etc.). There are only two features necessary \(([+\text{son}], [+\text{strid}])\) to separate voiced fricatives from rhotics, yet there is no interaction between those classes. There are also only features necessary to separate voiced fricatives from voiced stops \(([+\text{cont}], [+\text{strid}])\) and these classes exhibit a robust correlation in size \( (r = 0.63) \). If only features were referenced, \([+\text{son}]\) should not cause any different effects than those caused by \([+\text{cont}]\), therefore these effects cannot only be attributed to featural similarity and inventory tendencies towards economy. Language inventories are not only using features but also sonority as a basis for the structure of their phonological systems.

**Conclusion and implications:** The results discussed here display that language inventories are structured with three distinct systems: obstruents, sonorants and vowels. These separate systems make little reference to each other to determine the size and structure of the phonological system. This investigation raises further questions for cognitive science (Does the trifold structure of inventories serve as an indicator of mental representations of sound systems?) as well as the evolution of language (What would be the purpose of developing three separate sound systems governed by separate rules within the same inventory?). This analysis demonstrates the existence of these three separate classes within inventories as well as the importance of sonority over other distinctive features for sound system organization. (747 words)

**References**


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On argument ellipsis in Japanese, this paper argues, contra studies like Boeckx, Hornstein, and Nunes (2007), that binding and control do not involve an agree relation or movement.

It has been pointed out that Japanese has argument ellipsis.

(1) John-wa zibun-no kuruma-o aratta; Mary-mo ___ aratta
   John-TOP self-GEN car-ACC washed Mary-also washed

'John washed his car, and Mary also washed his/her car.'

In (1), the empty object of aratta (washed) in the second sentence refers to the object in the first sentence, zibun-no kuruma (self's car), and it allows the sloppy interpretation. Oku (1998), among others, proposes that the object in the first sentence is copied as the object of the second sentence, and induces a sloppy reading, in which copied zibun can refer to Mary. (1) clearly shows that the Japanese reflexive zibun is eligible for argument ellipsis.

A wh-phrase, unlike zibun, does not seem to be eligible for argument ellipsis.

(2) *John-wa nani-o katta no; Bill-mo ___ katta no
   John-TOP what-ACC bought Q Bill-also bought Q

'What did John buy? *[(intended) What did Bill also buy?]

Though Takita (2009) considers that a sika-phrase in a sika-nai construction is eligible for argument ellipsis, we can find examples showing that a sika-phrase is not eligible for argument ellipsis relatively easily.

(3) *John-wa zibun-no hon-sika kari-na-katta ga, Mary-wa ___ kawa-na-katta

'John borrowed only his book, but *[(intended) Mary bought only his/her book.]

The ineligibility of a wh-phrase and a sika-phrase for argument ellipsis can be derived under Saito's (2007) proposal that an element which has already stood in an agree relation is not eligible for argument ellipsis (cf.: Sugisaki (2012)). In the first sentences of (2) and (3), nani (what) and zibun-no hon-sika (self's book-SIKA) have already agreed with no (Q) and nai (not), respectively, to induce a proper interpretation, and their formal features have been checked. After that, they are copied into the second sentences, but with their formal features already checked, nani and zibun-no hon-sika do not qualify to agree with another ka and another nai, respectively, and the second sentences fail to have a proper interpretation. Given this discussion, zibun, eligible for argument ellipsis, cannot be involved in any agree relation.

Zibun cannot be a copy left by movement, either. A copy left by movement resists argument ellipsis.

(4) a. *Hon-o Taroo-wa [CP Hanako-ga t (= hon-o) katta to] itta ga,
    book-ACC Taro-TOP Hanako-NOM bought that said though
    zassi-o Ziroo-wa ____ itta
    magazine-ACC Ziro-TOP said
    'Taro said that Hanako bought a book, but *(intended) Ziro said that she bought a magazine.'

b. *Ken-ga [CP Naomi-o [CP t (= Naomi) baka da to] omotte iru];
    Ken-NOM Naomi-ACC foolish be that think
Yuriko-mo Taro-o  _____ omotte iru
Yuriko also Taro-ACC  think

'Ken considers Naomi to be a fool; *(intended) Yuriko also considers Taro to be a fool.'

In (4a), the CP containing a copy left by scrambled hon-o (book-ACC) fails to be copied to the second sentence (Shinohara (2006)). For (4b), we can assume that the accusative subject Naomi (Naomi) in the first sentence has moved out of the complement CP to the SPEC of vP (Hiraiwa (2010)). We can take (4b) to show that CP containing the copy left by Naomi resists argument ellipsis. The copied CPs contain a copy of the moved elements in the first sentences, hon-o in (4a) and Naomi-o in (4b). Then, there should be no "original" positions for zassi-o and Taro-o in the second sentences, and they fail to be properly interpreted. Then, zibun, eligible for argument ellipsis, cannot be a copy left by movement, either.

The facts with argument ellipsis in Japanese strongly suggest that binding of zibun does not involve an agree relation or movement. PRO also seems to be eligible for argument ellipsis.

(5) John-wa Mary-ni [PRO zibun-no kuruma-o tukau yoo] susumeta;
  John-TOP Mary-DAT self-GEN car-ACC use recommended
  Bill-mo Lucy-ni  _____ susumeta
  Bill also Lucy-DAT recommended

'John recommended Mary to use his/her car; Bill also recommended Lucy to use his/her car.'

In (5), the complement clause containing PRO as its subject in the first sentence can be copied into the second sentence, and its PRO subject can find its new antecedent Lucy. Then, contrary to Boeckx and Hornstein (2006) and Takano (2010), control relations, like binding relations, are highly likely not to involve any agree relation or movement. Thus, as Chomsky (1993) suggests, binding and control can be best characterized as instructions at the CI interface, and argument ellipsis in Japanese provide strong evidence for it.

References
Evidence for a unified theory of movement: Moro DPs
Head movement – DP/NP – PP – passive – phase

Peter Jenks (UC Berkeley)

N⁰-D⁰-Γ⁰ movement in Moro (Kordofanian: Sudan) feeds A- and Ā-movement of N⁰, stranding nominal modifiers. We conclude that head movement is feature-driven movement to a specifier position, like other cases of movement [Mat06].

Moro is an SVO language with rich agreement and concord. DPs have the order N-Dem-Num-Adj/RC:

(1) δαμαλά ἰδ:_ατίδα δ_αγοτσαν δ-ανγκ-ά ‘those two good camels’
SG.camel DSC-those CL-TWO CL-good-ADJ

Moro lacks articles, but concord prefixes on nominal modifiers mark definiteness. Definite concord (DSC), formally a geminated version of regular concord (CL) plus the prefix ἰ-, is restricted to demonstratives (1) genitive DPs (2a), and relative clauses when they are the sole modifier in a definite DP (2b):

(2) a. δαμαλά ἰδ:_α-κύκ_υ (δαμαλάδιδα ἰδ:_α-κύκ_υ) ‘Kuku’s camel’
SG.camel DSC-GEN-Kuku
b. δαμαλά ἰδ-αγαρά (δαμαλάδιαγαρά) ‘the camel that is good’
SG.camel DSC-good-ADJ

Strong concord can only occur once per DP, on the modifier following the head noun:

(3) δαμαλά ἰδ-ι δ_α-κύκυ ‘these camels of Kuku’s’
SG.camel DSC-this CL-POS-Kuku (DSC-POS-Kuku)

We analyze strong concord as [+ DEF] agreement on modifiers in [Spec, DP]:

(4) [KP δαμαλα _ [DP ἰδι _ [AGR:+DEF] _ [D_ τ_+DEF] _ [NP δι_κύκυ ... τ_ ... ]]]
Locating strong concord in [Spec, DP] accounts for its restriction to the leftmost modifier, like nominative case in tensed clauses. Nouns occur to the left of this position, so they must move to KP(≅CP) (cf. [Sza94]), presumably from their base position after adjectives [Cin05]. Three arguments support N⁰- rather than NP-movement, contra [Cin05].

Nominalization: Nouns in Moro never appear next to their internal arguments, whether they are nominal complements or objects of nominalizations. Thus, nominalized verbs have the order VSO:

(5) δ_δριδα-η τρω _ κυκε-η δ-α-κ-ά ‘The police’s stopping Kuku was bad.’
SG-stop-NMZ SG.police Kuku-OBJ AGR-bad-ADJ

The object is case-marked in (5), hence a complement to V⁰+N⁰ earlier in the derivation. NP-movement incorrectly predicts that the object should move with nominalized verb, while N⁰-movement accounts for the stranded object.

Inalienable possession: Some kinship nouns in Moro agree with in person and number with their possessor, which can be overt, showing this is agreement rather than incorporation:

(6) a. was-άν (κ_αγκη) ‘my wife’ b. was-έν κ_ι_τύτυ ‘Tutu’s wife’
wife-1EX DSC-1SG.POS wife-3SG DSC-POS-Tutu

If N⁰ passes through D⁰(≅T⁰), it can probe the possessor DP, triggering movement to its specifier and agreement on the nominal head.
ASSOCIATIVE PLURALS: While Moro nouns inflect for number, kinship terms and proper names can receive an optional associative plural suffix -andá e.g. íwas-én-andá pl.wife-1EX-ASS 'my wives and their friends'; Kákú-anda 'Kuku and his associates.' We take this suffix to originate in Num⁰, through which N⁰ moves [Li99]. NP-movement does not permit N⁰ to acquire suffixes originating in higher functional projections.

Nominal projections possess [uN] paired with [EPP], triggering N⁰-movement to their inner specifier [Mat06]. N⁰ m-merges with the probing head after each stage of movement, where m-merge is feature-set union, yielding a new terminal.

This analysis predicts the surprising syntax of prepositions in Moro, which intervene between nouns and their modifiers:

(7) i-ga-Dwάlό [pp ádáml ék-áre ık:i ] I put the money under the book.’
    1SG-put-PFV money SG.book LOC-under ĐSC-this

Here, ékáre ‘under’ possesses uN and EPP, triggering movement of the N + D to [Spec, PP].

If A-movement is also triggered by categorical features [Mat06], either N⁰ + D⁰ or the KP/PP whose specifier it sits in should be equidistant goals for A-movement. This correctly predicts that nouns can strand PPs (8-b) in Moro passives, and that KP- and PP-movement are also possible (omitted):

(8) a. kúku k-andr-ó [pp n-trbésá ểáρó đɔ-àtió đəʊətɔin ]
    Kuku CL-sleep-PFV on-table LOC-top -ĐSC-that CL-three
    ‘Kuku slept on top of those three tables.’

b. trbésá, đ-andr-n-ó-u [pp t_i ểáρó đɔ-àtió đəʊətɔin ]
    table CL-sleep-PAS-PFV-LOC on.top -ĐSC-that CL-three
    ‘Those three tables were slept on top of.’

N⁰ + D⁰ is accessible to passivization because it sits at the edge of PP or KP, both phases. A-movement allows identical patterns. Head movement feeds “phrasal” movement because of the Transparence Condition (TC): heads are accessible to movement until a higher head projects [Mat06].

This phenomenon is unexpected in alternative approaches to head movement: phonological head movement [Cho01] cannot account for N⁰’s ability to escape PP, while Agree-based head-movement [Rob10] cannot explain the distinction between subject agreement and N⁰-movement in (8-b).

References


The functional architecture of nominal modifiers in Chinese and Thai
NP/DP – modification – relative clause – type-shifting

Peter Jenks (UC Berkeley) and Shi-Zhe Huang (Haverford College)

This paper presents a unified analysis of relative, possessive, and measural modifiers in Mandarin Chinese and Thai. While Chinese uses one marker, \textit{de}, with all three modifiers, Thai uses three separate lexical items. We propose that nominal modifiers must undergo two semantic operations associated with different functional projections: one which creates predicates, and a second which nominalizes these predicates. Chinese realizes this latter function invariantly as \textit{de}, while Thai markers are functional spans for both heads.

**Bare nouns and modification:** Chierchia (1998) proposes that nouns in classifier languages denote kinds, of type $<$e$>$. Huang (2006) extends this analysis to Chinese modifiers, which she argues must match the type of the head noun in order to modify it, accounting for the distribution of simple and complex adjectives in Chinese.

**Relative clauses:** Chinese obligatorily marks relative clauses with \textit{de}. Thai marks relative clauses with \textit{thii}, which is optional with subject relatives:

\begin{align*}
\text{(1) a. } & \text{ wo xihuan } \underline{\text{__}} \text{ *}(\text{de}) \text{ gexing} & \text{b. } \underline{\text{__}} \text{ xihuan wo } *\text{(de) gexing} \\
& \text{1sg like singer} & \text{1sg like singer} \\
& \text{‘the/a singer that I like’} & \text{‘the/a singer that likes me’}
\end{align*}

\begin{align*}
\text{(2) a. } & \text{ nakrian} \underline{\text{__}} *\text{(thii) chan ch\text{opp }__} & \text{b. nakrian } \underline{\text{(thii)__} ch\text{opp chan}} \\
& \text{student} & \text{student} \\
& \text{1sg like} & \text{1sg like} \\
& \text{‘=(1a)’} & \text{‘=(1b)’}
\end{align*}

Huang (2006)’s analysis entails that in (1), \textit{de} shifts the $<$e,t$>$ relative clause to type $<$e$. In contrast, Jenks (2012) argues that \textit{thii} is a relative operator in Thai, accounting for its optionality with subject relatives because their subject argument is left unsaturated. Yet Thai is also a classifier language, and thus Thai modifiers must undergo nominalization as well under Huang’s proposal.

These proposals can be reconciled if predicate abstraction and nominalization take place in two separate functional heads, here labeled RelP (=CP) and nP:

\begin{align*}
\text{(3) a. } & [n \text{ [RelP Rel [TP … ]]}] & \text{b. } [[n]] = \cap (\text{RelP}) & \text{c. } [[\text{Rel}]] = \lambda x [P(x)]
\end{align*}

In Chinese, \textit{de} realizes $n$, while Rel is silent. In Thai, \textit{thii} realizes the span (Svenonius 2012) consisting of $n$ and Rel. This accounts for the general use \textit{de} with nominal modifiers in Chinese compared to the specialized use of \textit{thii} with relative clauses in Thai.

**Possessives:** Chinese possessives are marked by \textit{de} (4), while Thai possessives are marked by the noun $kh\text{\text{"o}}n$, meaning ‘goods’ (5):

\begin{align*}
\text{(4) wo } *\text{(de) shu} & \text{ (5) na\text{"sii} } *\text{(kh\text{"o}}n) \text{ chan} \\
& \text{1sg book} & \text{book 1sg} \\
& \text{‘my book} & \text{‘=(4)’}
\end{align*}

$De/kh\text{"o}}n$ are optional with kinship terms, which we take to be relational nouns. The presence of $de/kh\text{"o}}n$ with non-relational nouns permits possessors to function as arguments; this functional head is interpreted as the general possession relation R (cf.
Rather than saturating the second argument of this relation with the head noun, we propose that Thai and Chinese nominalize this one-place relation and intersect it with the head noun, as with relative clauses:

\[(6) \quad \begin{array}{lll}
\text{a. } [nP [\text{PossP Poss }[DP \ldots ]]] & \text{b. } [[n]] = \overset{\cap}{\text{PossP}} & \text{c. } [[\text{Poss}]] = \lambda x.\lambda y[R(x,y)]
\end{array}\]

Again, \textit{de} spells out \textit{n} in Chinese, leaving the possession head silent. Thai spells out the Poss-\textit{n} span as \textit{kh\textcircled{n}}. \textit{De/kh\textcircled{n}} are optional with relational nouns because the possessor can optionally saturate the relational head noun’s open argument position.

**Measures:** The syntax of attributive measure expressions (Schwartzschild 2006) in Thai and Chinese are similarly distinct. In Chinese, these modifiers are marked with \textit{de}; in Thai they are marked with the noun \textit{khanaat}, ‘size’:

\[(7) \quad \begin{array}{lll}
\text{san gongjin *(de) juzi} & \text{som *(khanaat) saam loo}
\end{array}\]

Thai \textit{khanaat} is independent from adjectives describing dimensions, which can optionally appear in attributive measure expressions in both languages: \textit{san gongjin zhong *(de) ‘three kilo heavy DE’/ khanaat kwaan saam met ‘size wide three meters’}. Our analysis of attributive measure expressions parallels the earlier cases: the measure expression \textit{Num-Meas} describes a measure(\(=\mu\)); a functional head above this measure derives a predicate, allowing the measure to function as a modifier; this predicate then must be nominalized:

\[(9) \quad \begin{array}{lll}
\text{a. } [nP [\text{MeasP Meas }[DP \ldots ]]] & \text{b. } [[n]] = \overset{\cap}{\text{MeasP}} & \text{c. } [[\text{Meas}]] = \lambda x.[\mu(x)]
\end{array}\]

Evidence for the predicative status of these expressions comes from their distribution in copular sentences. Evidence for the nominalizing function of the three Thai markers comes from their syntactic status as nouns.

This proposal supports the idea that modifiers contain extended functional structure (e.g. Leu 2009), the conjecture that nouns in classifier languages are semantically distinct from those in number-marking languages (Chierchia 1998), and analyses of crosslinguistic variation which rely on different lexicalizations of functional spans (Svenonius 2012).

**References:**


GOAL: This paper examines data from original fieldwork on Hocąk (Siouan) that provide empirical evidence for Fox’s 2002 analysis of antecedent-contained deletion (ACD).

BACKGROUND: Fox’s 2002 analysis of ACD makes use of two crucial assumptions: that adjuncts can undergo late merger, and that overt and covert movements can be interspersed (à la Fox & Nissenbaum 1999). Fox proposes that the derivation of ACD constructions (e.g. ‘John likes every boy that Mary does.’) occurs in three steps. The first step is the derivation of the VP. The second step is covert rightward movement of the object (1a). Finally, the relative clause undergoes overt late merger with the covert copy of the object (1b). Parallelism is satisfied due to late merger: since the relative clause merges with the raised object, there is an antecedent VP [likes every boy] that is identical (after trace conversion) to the elided VP [likes boy].

(1) a. [[VP John likes every boy] every boy]
b. [[VP John likes every boy] [every boy that Mary does (likes boy)]] (Fox 2002:76)

DATA: Hocąk provides the ideal case-study for Fox’s analysis, as it is an SOV language (2) that also exhibits verb phrase ellipsis (3) (Johnson et al 2012).

(2) Hinykra ważtirera růwij
lady.DEF car.DEF 3s.buy
‘The lady bought the car.’ (CG.BR.030812:8)

(3) Cecilha ważtirehíža růwij kjane anaga née šge haャų kjane.
Cecil.PROP car.INDEF 3s.buy FUT and I also 1s.do FUT
‘Cecil will buy a car, and I will too.’ (CG.MJ.041212:11)

In Hocąk, ACD is possible with one constraint: if an object is relativized, the object must be right-dislocated (4a). If the object remains in situ, the result is ungrammatical (4b). Note that the non-elliptical counterparts of the examples in (4) are both grammatical, as shown in (5).

(4) a. Bryanga (ni<Address Removed>hegu) růwij, jaagu Meredithga ūруч
Bryan.PROP also 3s.buy that.way what Meredith.PROP 3s.do.COMP
‘Bryan bought what(ever) Meredith did.’ (CG.MJ.05092012:18)
b. *Bryanga, jaagu Meredithga ūруч, růwij
Bryan.PROP what Meredith.PROP 3s.do.COMP 3s.buy
‘Bryan bought what(ever) Meredith bought.’ (CG.MJ.05092012:21)

(5) a. Bryanga (ni<Address Removed>) růwij, jaagu Meredithga ruwijra
Bryan.PROP also 3s.buy what Meredith.PROP 3s.buy.COMP
‘Bryan bought what(ever) Meredith bought.’ (CG.MJ.05092012:17)
b. Bryanga, jaagu Meredithga ruwijra, růwij
Bryan.PROP what Meredith.PROP 3s.buy.COMP 3s.buy
‘Bryan bought what(ever) Meredith bought.’ (CG.MJ.05092012:20)
However, ACD involving an adjunct exhibits no such constraint. Instead, the relative clause has the option of remaining between the subject and the verb (6b), which is the default position for adjuncts (7). Right-dislocation of the adjunct is also possible (6a); however, this is not unusual, as right-dislocation is freely available for discourse-informational purposes in Hocak. Note that the two positions for the relative clause are available in non-elliptical environments as well (6).

\begin{enumerate}
\item \textit{Bryanga} (nišge) waši, \textit{hacijja} Meredithga ūgra/wāsira
\item \textit{Bryanga, hacijja Meredithga ūgra/wašira, nišge waši}
\end{enumerate}

\begin{enumerate}
\item ‘Bryan danced where(VERB) Meredith did.’ (CG.MJ.05092012:36-37)
\item ‘Bryan danced where(VERB) Meredith did.’ (CG.MJ.05092012:39-40)
\end{enumerate}

\begin{enumerate}
\item Wijukra šyukra hozatatprookeeja haja.
\item cat.DEF dog.DEF woods.inside.THERE 3S.see
\item ‘The cat saw the dog in the woods.’ (CG.BR.032912:11)
\end{enumerate}

**ANALYSIS:** ACD resolution in Hocak proceeds in the same way that Fox argues for on the basis of English data. The derivation of the example in (4a) is schematized in (8):

\begin{enumerate}
\item [VP Bryanga hegų jaagu ruwij]
\item [[VP Bryanga hegų jaagu ruwij] hegų jaagu]
\item [[VP Bryanga hegų jaagu ruwij] [hegų jaagu Meredithga ūgra]]
\end{enumerate}

First, the VP is generated (8a). Following Bresnan & Grimshaw 1978, Larson 1987 and Citko 2002, among others, I assume that the \textit{wh}-phrase of free relatives occupies the head position, but no part of my analysis rests crucially on this analysis. Second, the object right-joins to the VP (8b). Lastly, the relative clause adjoins the right-dislocated object (8c). At PF, the right-joined object is pronounced. As in Fox’s analysis, parallelism is satisfied due to the late merger of the relative clause.

In the case of adjunct free relatives, rightward movement is not necessary for ACD resolution because parallelism can be satisfied without it. Instead, after VP generation, the adjunct can undergo late merger to left-adjoin to the VP. This is shown in (9) (cf. 6a):

\begin{enumerate}
\item [VP [CP hacijja Meredithga ūgra] [VP nišge waši]]
\end{enumerate}

Because parallelism can be satisfied when the adjunct is merged in its usual position, right-dislocation is not necessary for ACD resolution.

**IMPLICATIONS:** The data from Hocak provide strong empirical evidence for both crucial pieces of Fox’s analysis. First, rightward movement is both overt in Hocak and required for ACD resolution of objects. Second, adjuncts may remain \textit{in situ}, which I attribute to the late merger of adjuncts.

Implicit Phrasing and Prominence Influence Relative Clause Attachment: Evidence from Prosodic Priming

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Keywords: prosodic priming, prominence and phrasing, RC attachment, individual differences

The present study explores prosody’s role in the resolution of relative clause (RC) attachment ambiguities. In a sentence such as Someone shot the servant of the actress who was on the balcony, the RC can modify NP1 the servant (i.e., high attachment) or NP2 the actress (low attachment). Although the details of attachment preference are language-specific (Fodor 1998, Fernández 2003) it is known that, cross-linguistically, attachment decisions are sensitive to the length of the RC. This fact has been used to support the Implicit Prosody Hypothesis (IPH; Fodor 1998, 2002), which claims that the implicit prosody associated with a syntactic structure influences attachment. It predicts that speakers and listeners favor low attachment when the RC forms a single prosodic phrase with NP2, but that they favor high attachment when there is a prosodic break before the RC. However, studies testing this prediction have examined the prosodic properties of speakers’ productions, and the results have been controversial (Lovric et al. 2001, Jun 2010).

Here we provide new evidence supporting the IPH by showing that auditorily presented prosody influences attachment decisions in silent reading. We created sixteen prime sentences and 18 target sentences (all containing relative clauses that were unbiased to either NP attachment interpretation) to be used in a listening and reading/processing experiment. The prime sentences were then recorded by a native English speaker with three different prosodic phrasings: “early phrasing”, (NP1)/(NP2 RC); “late phrasing”, (NP1 NP2)//(RC); and “neutral phrasing”, (NP1)(NP2)(RC) as a single phrase. (‘//’ indicates an Intonation Phrase boundary). In each experimental trial, subjects heard 3 prime sentences – all produced with the same phrasing type – and were then asked to make an attachment decision about an orthographically presented target sentence that appeared on a screen. The 18 target sentences (rotated through the three phrasing conditions) were presented to 120 native English speakers. Using mixed-effects logistic regression, we modeled subjects’ attachment decisions about targets as a function of phrasing types and several subject-related variables. Among these were measures of working memory (the Reading Span task; Daneman & Carpenter 1980), shown relevant to predicting RC-attachment in reading (Swet’s et al. 2007), and “autistic”-like personality traits (measured by the Autism Spectrum Quotient (AQ); Baron-Cohen 2001), shown to be relevant to predicting the use of prosodic prominence in sentence processing (Bishop 2012).

Results of our model indicate the following. First, there was a robust effect of RC-length on attachment decisions; consistent with previous findings, shorter RCs were associated with a lower probability of high attachment decisions by subjects. Second, target sentences read after hearing primes with early phrasing were also associated with lower rates of high attachment – consistent with the IPH – although the effect was statistically marginal (p=.08). Finally, however, a significant interaction was found between phrasing condition and the “communication” subscale of the AQ. In particular, poorer communication skills, i.e., more “autistic”-like traits, were associated with a stronger effect of “late” phrasing on attachment decisions in the direction predicted by the IPH. That is, late phrasing triggered more high attachment responses from these subjects (p<.01; See Fig.1).

That more “autistic”-like traits were associated with greater sensitivity to the prosodic manipulation in our experiment is rather surprising given the prosodic deficits usually associated with autism spectrum conditions (e.g. Diehl & Berkovits 2010). We explore the hypothesis that this finding is related to individual differences in prosodic strategies for disambiguating the relevant syntactic structures. Specifically, we argue that most listeners (those with good to mid-level communication skills) are biased by prosodic prominence: when the prosodic boundary is late (falling between NP2 and RC) and both NPs are accented, NP2 becomes more prominent – by being nuclear pitch accented (this was the case with our
stimuli). It thus seems that, for these listeners, a bias towards attaching the RC to the nearest prosodically prominent position was counteracting the effect of the phrase boundary. This was not the case, however, for subjects with poorer communication skills, who were sensitive to the phrasing only. That exactly such subjects are less attentive to prominence relations was independently found by Bishop (2012) using the cross-modal associative priming paradigm. Taken together, the results of this study broadly support the Implicit Prosody Hypothesis, but suggest a more complex picture of the relevant prosodic representations of the target structure, and individual differences in interpreting their salience.

![Graph showing percentage of high attachment response for good, mid, and poor AQ groups for neutral, early, and late phrasing conditions](image)

**Fig 1.** Proportion of “High Attachment” responses for target sentences for the three phrasing conditions. Three groups of subjects are shown, based on their communication skills as assessed by the AQ.

### References


Hyun Kyoung Jung (University of Arizona)

Syntactic Constraints on Morpheme Ordering

While applicative and causative constructions have been extensively studied independently, the configuration derived by the interaction of the two has drawn less attention in generative grammar. This is partly because applicative and causative affixes in some languages (e.g. Chichewa) seem to be subject to a fixed morphological template (Hyman 2003), while others allow reordering of the two. This study shows that the apparent morphological constraints on the interaction of applicative and causative in Hiaki and Korean are in fact due to the size of the complement that causative and applicative heads take. The analysis explains the distinct status of productive and lexical causatives and seemingly opposite restrictions on Chichewa suffix order.
Tracking individual differences in reference resolution: What a mouse can tell us
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Key words: psycholinguistics, reflexives, anaphora, individual differences

Psycholinguistic research reveals mixed results regarding reflexive processing. Badecker/Straub (2002) found referents not licensed by Binding Theory (BT) can nevertheless interfere with reflexive processing. Presence of a gender-matching competitor (e.g. John in ex.1) causes a reading slowdown, compared to sentences with no gender-matched competitor (Jane). B&S conclude the local antecedent competes with the gender-matching matrix subject. However, Sturt (2003) has challenged these claims (see also Xiang et al. (2009), Dillon et al. (2011) for related work). However, the relative contributions of different cues and processes (e.g. structural-vs.-featural) are not yet fully understood.

(1) [John/Jane] thought that Bill owed himself another....

Our experiment uses mouse-tracking to investigate whether individual differences in cognitive processing styles influence the reference resolution process.

Recent work suggests that individual differences in information processing may have important consequences for language (e.g. Yu, 2010 on coarticulation). The idea of different ‘processing styles’ plays a central role in research on autism. In particular, the Weak-Central-Coherence account claims that autistic individuals focus on bottom-up details (e.g., Happé 1999), while ‘normals’ focus more on higher-level/top-down information (psycholinguistic evidence: Jolliffe/Baron Cohen 1999, Ota/Stewart 2008, Walenski et al. 2008). Importantly, so-called ‘autistic traits’ are present in the general population, at lower levels (e.g., Baron-Cohen et al. 2001, Yu 2010), measurable by the Autism Spectrum Quotient questionnaire (AQ, Baron-Cohen et al. 2001).

Our experiment explored whether a person’s AQ score correlates with how they process reflexives. Using sentences like those in ex.(2), we investigated whether higher AQ scores correlate with a stronger adherence to bottom-up cues and less use of top-down/contextual knowledge.

(2)

<table>
<thead>
<tr>
<th>Self-directed</th>
<th>Other-directed</th>
<th>Nonsense/novel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary/Peter</td>
<td>John</td>
<td>shaved</td>
</tr>
<tr>
<td></td>
<td>tickled</td>
<td>himself.</td>
</tr>
<tr>
<td></td>
<td>dribbed</td>
<td>[female-male-himself]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[male-male-himself] =&gt; gender-matched</td>
</tr>
</tbody>
</table>

We manipulated (i) whether the embedded verb was prototypically self-directed (e.g., shave,wash), prototypically other-directed (e.g., kick,tickle), or a nonsense verb (no semantic biases), and (ii) whether the matrix subject (not a possible antecedent according to BT) matched reflexives’ gender. We had 24 targets (12 ‘himself’, 12 ‘herself’), 40 fillers, 18 participants (normal ‘neurotypical’ undergraduates).

Using mouse-tracking, we recorded mouse-coordinates in real-time (Freeman & Ambady 2010). Participants saw words in left and right corners of the screen (Fig 1a,b; matrix and embedded subjects on target trials, L/R-balanced), clicked ‘start’ button to hear a sentence (ex.2), and afterwards clicked on the last-mentioned entity (in targets=>whoever ‘himself/herself’ refers to). Practice items were used to confirm people understood task/instructions. Afterwards, participants completed questionnaires, including the AQ.
Data analysis: We measured the extent of deflection towards matrix subjects by means of the area under the curve (relative to a straight line, see image from Freeman; see Freeman/Ambady 2010).

Predictions: We are interested in two main predictions:

Predictions: #1 Does the matrix subject compete? More deflection towards the matrix subject when it’s gender-matched (Fig 1a-vs.-1b) would suggest it is considered during processing, contrary to Binding.

#2 Individual differences? If anaphoric processing is influenced by cognitive processing style, individuals with high AQ scores (more ‘autistic traits’, focused on bottom-up details) are expected to focus mostly on the reflexive itself (its syntactic requirements) and to be less sensitive to the contextual information from the verb. Individuals with lower AQ scores (less ‘autistic traits’) might be more sensitive to verb information. Specifically:

With self-directed verbs, both low- and high-AQ-scorers should focus on local subjects (due to context/verb semantics and the reflexive’s requirements, respectively). With other-directed verbs, low-AQ scorers might be ‘tempted’ by the matrix subject (verb semantic effect). High-AQ scorers are predicted to focus on the local subject (bottom-up bias). With nonsense verbs, low-AQ scorers might be again tempted by the matrix subject (verb doesn’t preclude it), but presumably not high AQ-scorers.

Results: People mostly clicked the local subject, but mouse-tracking reveals significant (p<.05) deflection/attraction towards matrix subjects that match the reflexive’s gender (for all verb-types—suggesting processing is not fully constrained by BT (cf. Runner et al 2003). Furthermore, we find intriguing AQ-related effects. (i) Self-directed verbs show no correlation between AQ scores and deflection/attraction to matrix subject. However, (ii) other-directed verbs show a negative correlation between AQ and deflection amount (gender-matched: p<.05, not-gender-matched p=.064). (iii) Nonsense verbs show a significant negative correlation between AQ and deflection amount (p’s<.03): The higher the score (more ‘autistic traits’), the smaller the amount of deflection. People with higher AQ scores perform better: They are less ‘tempted’ by the matrix subject and better able to identify the syntactically-licensed antecedent.

While many questions remain open, this study provides initial, novel evidence of individual cognitive processing differences influencing reference resolution. [word count: 746]

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Complementizer Concord in Western Armenian
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This paper accounts for the typologically unique double headed CP structure found in Western Armenian (WA), as an instance of concord. Certain CPs in WA can have two heads, where one is head-initial and the other is head-final. For these phrases, it is possible to omit one of the heads, and end up with either a head-initial or head-final phrase. These double headed CPs present two major challenges which I present solutions for. First, how to account for the phonological and syntactic differences between the head-initial and the head-final CPs. Second, how to compositionally derive the desired semantics of the doubly headed CPs.

As seen in (1), the CP adjunct “if i go home” has two C heads, the head-initial free morpheme jete “if” and the head-final bound clitic -ne which can mean {if, when, ever, or} depending on its environment. It’s possible to omit either of the heads, as in (2) and (3), and get the same interpretation as in (1).

(1) jete [dun jertam]-ne, bydem
    if home go.1S-NE, will.eat.1S
    “If I go home, I will eat.”

(2) jete [dun jertam], bydem

(3) [dun jertam]-ne, bydem

Besides the morphosyntactic difference of the C heads of (2) and (3), there is a difference in prosody, indicated in bold. The clausal focus in (2) is on the pre-verbal syllable dun ‘home’, whereas in (3) it is on the pre-C syllable tam, the second syllable of ‘go’. The default clausal focus position in WA is assigned to the item immediately preceding the verb, similar to for example Hungarian (Horvath 1986) and Basque (Arregi 2002). Therefore the prosody in (2) is expected while the pattern in (3) is not.

Following Richards (2011), the prosody difference between (2) and (3) is accounted for given Affix Support (Richards 2011:30), which states that “If any head is an affix, there must be a metrical boundary in the direction in which it attaches.” In the case of WA, the head-inital CP structure is headed by a free standing morpheme and therefore no prosodic change is seen for the TP. However the head-final CP, headed by the enclitic -ne, creates a metrical boundary immediately to the left of it. Since WA is a language with right edge stress for phrases (Vaux 1998), this pattern obeys Richards’ (2011) theory. WA’s unique double headed CP structure becomes a good test for Richard’s theory in the same language for the same phrase.

The second puzzle that I account for is that of compositionality. I claim that a CP like in (1) presents an instance of concord, similar to other concord phenomena found in WA like that of negation. Zeijlstra (2004, 2008, ...) account for the phenomenon of negative concord cross-linguistically with a Last Resort covert negative operator, Op_, which Zeijlstra (2004) following Giannakidou (1997) and Heim (1982) claims that this operator introduces negation at LF and binds all open variables under existential closure. Therefore the semantic meaning of negation comes from this operator when no other element in the overt syntax provides an interpretable negation. This is the case for certain WA phrases as in (4).
The two negative morpheme bearing phrases in (4) do not have any interpretable negative force, therefore a c-commanding $Op_-$ is introduced resulting in only one semantic negation. I extend this analysis to CPs. The head-initial conditional morpheme $jete$ and the head-final enclitic -ne yield only one conditional meaning. I claim that both these morphemes carry uninterpretable features that trigger a single covert operator as in (5). This operator carries an interpretable feature that checks the uninterpretable features of one of the two or both C-heads.

Other environments where two heads appear in the same clause are with free relative constructions as in (6), which can be accounted for using the same mechanism. In the case of (6), the covert operator will carry universal force.

The extension of Zeijlstra’s (2004) account of negative concord via a covert operator can be applied to other languages other than WA for CPs where double headedness is present.
**Title:** Adjective Ordering: A View from Korean  
**Key words:** Adjective ordering, Syntax-semantics interface, Typology, Korean

**Adjective Ordering: A View from Korean**  
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Across languages, adnominal adjectives (ADJs) occur only in certain orders, both among themselves and relative to other N dependents, and exactly what is responsible for their ordering restrictions (AORs) has been under a lively debate (see Sproat & Shih 1988, 1990; Bouchard 2002; Svenonius 2008; Cinque 2005, 2010; Ramaglia 2010; references there). The present paper aims to contribute to this ongoing debate by looking at Korean, a head-final/determiner-less/classifier/scrambling language whose AOR phenomenon not been much studied in the literature (cf. Kang 2006).

Two most well-known AORs are that (i) ADJs tend to occur following demonstratives (DEMs) and numerals (NUMs) (e.g., Greenberg 1963; Hawkins 1983; Dryer 1992; Cinque 2005), and (ii) when multiple ADJs co-occur modifying the same noun (N), morpho-syntactically simplex ADJs occur closer to the N than morpho-syntactically complex ones (e.g., Whorf 1945; Bolinger 1967; Sproat & Shih 1988, 1990; Larson 1998, 2000; Bouchard 2002; Cinque 2005, 2010). Notably, such tendencies hold independently of head directionality, and this has led linguists to posit that AORs reflect syntactic hierarchy, rather than mere precedence (e.g., Svenonius 2008; Cinque 2010).

There is, however, a lack of consensus among authors as to how to formally capture AORs, and this has important consequences for the syntax-semantics interface. For example, Cinque (2010) hypothesizes that in all languages, morpho-syntactically simplex N modifiers (“true ADJs” in his terms) merge right above NP, and morpho-syntactically complex ones (i.e., reduced/full-fledged relative clauses (RCs)) merge farther away from it. Under this view, the form/length of an N modifier determines its meaning: “True” ADJs carry so-called direct modificational (Mod) semantics (e.g., generic, inherent, intensional), whereas (reduced) RCs carry so-called indirect Mod semantics (e.g., non-generic, occasion-based, extensional). On the other hand, Larson (1998, 2000) posits that N modifiers may occur anywhere inside DP regardless of their morph-syntactic complexity, and their interpretation is determined by their relative scope to the generic operator (GEN) in the sense of Chierchia (1995): GEN is located at [Spec, NP], so whatever N modifiers occurring inside NP receive generic interpretations.

This paper claims that the Korean facts call for the middle ground between Cinque’s (2010) and Larson’s (1998, 2000) analyses. More specifically, I show that while the AOR in Korean is determined largely by the morpho-syntactic complexities of the modifiers under consideration, morpho-syntactic complexity cannot be equated with indirect Mod semantics, contra Cinque. To capture such partial correspondence between the form and meaning of N modifiers in Korean, I adopt the position that Svenonius (2008) advocates, viz. N modifiers are introduced by various functional heads which form a hierarchy but what determines their merge sites are mostly semantic considerations. Parting with Svenonius and agreeing in spirit with Larson (1998, 2000), however, I propose that there are discourse (D) oriented and non-D-oriented Mod regions inside DP, and any N modifiers including RCs can occur in either region, so long as it is allowed by compositional semantics. More concretely, while Svenonius suggests that DP is comprised of functional heads Art, Unit, Pl, Sort, n, and √ (root) in the sense of Marantz (2001), which respectively introduce DEM, NUM, plural-marking, a gradable adjective phrase (AP), a non-gradable AP, and an ADJ forming an idiom with an N, I suggest that (i) DP contains yet another functional projection XP right above SortP and this projection introduces D-oriented N modifiers; (ii) SortP hosts GEN; (iii) any N modifier may occur at [Spec, SortP] but given Kayne 1994, there is just one [Spec, SortP]; and (iv) [Spec, nP] is reserved for APs bearing thematic relations to the head N, as depicted in (1).

(1) \[
\text{DP DEM}_{\text{UnitP}} \text{ NUM } \text{ PlP } \text{ XP } \text{ AP/CP} \] \[\text{SortP GEN } \text{ AP/CP } [\lambda_P [\text{AP/PL} [\lambda_P [\text{AP} [\lambda_x] [\lambda_y] [\lambda_z]]]]] \]

\begin{align*}
\text{D-oriented Mod} & & \text{Non-D-oriented Mod}
\end{align*}
Title: Adjective Ordering: A View from Korean
Key words: Adjective ordering, Syntax-semantics interface, Typology, Korean

Under this analysis, SortP serves as the demarcating line between D-oriented/indirect and non-D-oriented/direct modification, DP can have maximally one non-D-oriented gradable AP, and the ‘indirect’ semantics of ADJs can be explained without calling them ‘reduced RCs’ unlike in Cinque 2010. In addition, if we assume with Svenonius that the need for cluster-formation triggers language-specific “roll-up” movements, then we can capture the position of RCs relative to other N modifiers, as exemplified below for English, an issue that Svenonius leaves open.

(2) \[ \text{DP} \{\text{that} \text{John gave me}\} \{\text{SortP} \{\text{very lovely}\} \{\text{AP} \{\text{pearl}\} \{\text{vase}\}\}\}\]\]

In sum, the present analysis will be shown to deliver correct N-modifier orders in Korean (and other languages) and advance our understanding of the morphology-phonology-syntax-semantics interfaces in the phenomenon of AOR.

(Word count: 745)

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Jooyoung Kim and Satoshi Tomioka (University of Delaware)

**Conventionally Implicated Questions**

Keywords: embedded question, epistemic bias, conventional implicature

There is a type of embedded question in Korean and Japanese that is not selected by any predicate. (1) is an example in Korean (it is truly an embedded question since the combination nun-ci is possible only for embedded questions):

(1) [pi-ka wass-nun-ci] matang-i ceceiss-ta. rain-nom came-ind-Q ground-nom wet-decl

‘[Did it rain?] the ground is wet.’

(1) asserts that the ground is wet while it also indicates that (i) the speaker is unsure whether it rained, but (ii) if it had, it would be the cause of the ground being wet. This type of question, which we call Sp(eaker-oriented) E(mbedded) Q(uestion)s raise the following questions: (i) How can an unselected question be integrated into the main clause?; (ii) How should its semantic contribution be represented? We propose that a SpEQ contributes to the C(onventional) I(mplicature) tier in the sense of Potts (2005). We will show that SpEQs have the following CI properties that Potts (2005) enlists: (a) they are invariably speaker-oriented, (ii) they cannot be negated, (iii) they are lexically triggered (‘comma’, see below), and (iv) they are anti-backgrounding. To integrate a SpEQ in a compositional fashion, we propose that (i) the obligatory prosodic break after the Q-marker corresponds to ‘comma’ of Potts (2005), and (ii) the ‘comma’ facilities the transition from the at-issue meaning to CI. The innovation here is that the CI-tier can host something non-propositional; a question. As for the contribution of a CI question, we draw a parallel between Potts’ analysis of supplements and our SpEQs. Supplements (e.g., an appositive relative clause) are not backgrounded and hence update Common Ground albeit in a ‘de-emphasized’ fashion (Potts 2005). Similarly, CI questions update the Question-Set (of Portner 2005), but SpEQs are introduced as non-urgent questions. Thus, (1) can be commented on by an utterance like *But it'll dry up soon* or *Yes, it actually rained*, suggesting that a CI question can (but need not) be answered subsequently.

The current analysis also derives the semantic/pragmatic effects of SpEQs. Since a SpEQ is basically a (de-emphasized) root question, it follows that the speaker is unsure of the answer. The existence of a CI question alone is sufficient to generate the implicit ‘causal-link’ meaning as well, as the same effect is found in the closest (but not complete) paraphrase of (1) in English: *The ground is wet; I wonder whether it rained.*

It is also predicted that a CI question inherits all the epistemic biases associated with root questions. Polar questions can be used pragmatically to express biases (cf. Ladd 1981, Romero and Han 2001, and van Rooy and Šafářová 2003). (2) shows that a polar question, *p?*, but not *p or not?*, can express the speaker’s bias towards the truth of *p* though she does not know that *p* is true (cf. van Rooy and Šafářová 2003)

(2) A: Maria says that she saw David last night.
   B: Oh? Is David back from Toronto (#or not)?

Polar SpEQs have this bias as well. Since the speaker attempts to relate a proposition to a relevant question whose answer is a likely cause, the presence of a bias is expected. Thus, (3), with the negative alternative added, is felicitous, just as the English (near-) counterpart, *The ground is wet; I wonder whether it rained or not*, is.

(3) [#pi-ka o-ciahn-ass-nun-ci matang-i ceceiss-ta. rain-nom come-neg-past-ind-Q ground-nom wet-decl]

‘[Did it rain or not?] the ground is wet.’

The relevance of the speaker’s bias in SOEQs is further witnessed in Japanese. A polar question in Japanese can take two forms: the ordinary indicative form or the nominalizer + copula (*no-daidesu*) form, and only the latter can express a biased question.
(4) A: (= (2A) above)
   B: E, soo? Jaa, Hana-wa Toronto-kara kaette-kita-n-desu-ka? / # kaette-kimashita-ka? 
      really? then Hana-top Toronto-from return-came-no-cop-Q / return-came(ind)-Q
      'Oh really? Then, did Hana come back from Toronto?'

As expected, Japanese polar SpEQs must contain the nominalizer no: for instance, (1) in
Japanese must be ame-ga hutta-no-ka, ‘rain-nom fell-NML-Q’.
Questions of the form, p or not?, or alternative questions in general, can occur as SOEQs when the alternatives represent
two plausible causes.

     John-top my heart-acc know-ind-Q not.know-ind-Q left-decl
     ‘John, [did he or did he not know my heart?] left.’

Rarely are p and not p both plausible causes for the same event, but (5) depicts such a case:
John left because he knew the speaker's feeling for him or he left because he was unaware of
it.

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749 words (including titles)
We present psycholinguistic evidence from two experiments supporting the hypothesis that non-final wh-words in coordinated-wh (CWh) questions like (1) do not participate in movement dependencies, but rather form purely semantic relationships with the verb. The lack of syntactic dependency leads to a temporary illusion of grammaticality for CWh-questions with filled gaps.

The acceptability of CWh-questions with an argument wh-word depends on wh-order and verb type. When the argument is non-final, only optionally-transitive verbs are acceptable (1) [1,2]. When the argument is final, both optionally- and obligatorily-transitive verbs are acceptable (2). These generalizations have been confirmed in English with untimed [3] and speeded [4] acceptability judgment studies.

(1) **What** and when did Georgina {eat /*fix}?  
(2) When and **what** did Georgina {eat/fix}?

We propose that the verb restriction in (1) arises because the first conjunct enters into a non-movement, semantically-mediated variable-binding dependency with the verb. The relation is licit with optionally-transitive verbs, which introduce indefinite variables as implicit arguments [5,6], but not with obligatorily-transitive verbs, which do not. The verb restriction is lifted in (2) because the last conjunct participates in a movement dependency.

Psycholinguistic evidence suggests that the parser immediately posits dependencies between wh-words and potential gap-sites [7,8]. If the gap-site is filled by an overt argument (3), the violation is detected immediately, resulting in increased processing cost. If active dependency formation is strictly syntactic, then “filled-gap effects” should not arise in argument-first CWh-questions, since the argument wh-word does not participate in a syntactic dependency: (4) should seem more acceptable than (3).

(3) The man wondered what Georgina would eat something *(with).  
(4) *The man wondered **what** and when Georgina would eat something.

Interestingly, while ungrammatical filled gaps virtually never occur in simple wh-questions, cursory searches of Google and the Corpus of Contemporary American English [9] return a number of examples in CWh-questions, e.g. (5-8).

(5) Now I know what and when to eat the correct food combinations.  
(6) ...you need to tune in to what and how something is said...  
(7) ... information that lets women choose what and when they want financial advice.  
(8) The AAAS benchmarks provide guidance for what and when we teach certain content areas...

We tested online sensitivity to filled gaps using a moving-window self-paced reading (SPR) paradigm. Participants (n=48) read embedded CWh-questions containing either optionally- (9) or obligatorily-transitive (10) verbs. We manipulated Wh-Type (‘what’/’when’/’what and when’) and whether the gap was filled with an overt argument (‘something’). Here we focus on the results for filled gaps.

(9) The diplomat had to make a schedule of {what | when | what and when} his lazy assistant would translate (something)...
The busy executive was especially worried about {what | when | what and when} his lazy assistant would overlook (something)…

For both verb types, reaction times (RTs) in post-verb regions were significantly longer in ‘what’ sentences than ‘when’ sentences: the standard filled gap effect. With optionally-transitive verbs, RTs for ‘what and when’ patterned with ‘when’ in all post-verb regions: there was no filled gap effect. Under our account, this is due to the lack of syntactic dependency between ‘what’ and the verb. With obligatorily-transitive verbs, RTs in the first post-verb region were significantly longer in ‘what and when’ than in ‘when’ sentences. In subsequent regions RTs patterned with ‘when’ sentences. The initial slow-down may reflect the unacceptability of the obligatorily-transitive verb. The filled gap does not register, since there is no movement dependency between ‘what’ and the verb.

In a follow-up speeded acceptability judgment study, participants (n=27) made binary judgments of embedded CWh-questions containing optionally transitive verbs and filled gaps (11). Again, we manipulated Wh-Type (‘what and when’ / ‘when and what’ / ‘when’). We also manipulated Filler-Type (‘something’ vs. definite DP) to test whether the light semantics of ‘something’ contributed to the lack of filled-gap effects in SPR.

(11) The diplomat had to make a schedule of {what and when | when and what | when} his lazy assistant would translate {something | the documents} during the week.

Participants’ judgments were significantly influenced by Wh-Type: ‘what and when’ sentences were accepted more often (54.7%) than ‘when and what’ (27.0%) and less often than ‘when’ (80.9%) sentences. Thus, comprehenders have no difficulty rejecting argument-final CWh-questions with filled gaps, but often fail to notice the unacceptability in argument-first CWh-questions. There were no significant differences based on Filler-Type: the illusion of grammaticality is robust for indefinite and definite “fillers”.

The reduced filled-gap effects in both studies support our hypothesis that the non-final conjuncts in CWh-questions participate in non-syntactic wh-dependencies.

References
Untangling the Balinese Bind: Binding and Voice in Austronesian
Theodore Levin (MIT)

Voice alternations in Balinese interact with binding phenomena in a way that appears problematic for standard views of the A/A-bar distinction. In simple sentences, movement to Spec-TP does not create new antecedents for binding, suggesting that Spec-TP is an A-bar position. In raising constructions, however, movement to the higher Spec-TP does create new antecedents for binding, behavior expected of an A-position. This paradox is dubbed the Balinese Bind by Wechsler (1998), who uses the phenomenon to demonstrate the superiority of HPSG approaches. In this paper, I argue that the paradox is illusory, and that Balinese Spec-TP is an unambiguous A-position, if we adopt a new account of the Balinese voice system and the Agree-based theory of Binding advanced by Rooryck and Vanden Wyngaerd (2011; R&V).

Voice/Binding Interactions: Balinese transitive verbs appear in two voices: morphologically unmarked Objective Voice (OV) (1a); and Agentive Voice (AV) (1b), marked by a phonologically conditioned nasal prefix. Data from Wechsler and Arka (1998) demonstrate that the preverbal nominal occupies Spec-TP in both voices.

(1) a. Bawi adol ida. pig OV.sell 3sg
    ‘(s)he sold a pig’
  b. Ida ngadol bawi. 3sg AV.sell pig
    ‘(s)he sold a pig’

In an OV reflexive construction (2a), it is the internal argument (IA) in Spec-TP that must be reflexive, as if Spec-TP were an A'-position, invisible to Binding Theory — so it is the vP-internal θ-positions that count as the crucial A-positions for Binding (as argued by Guilfoyle, Hung, and Travis' (1992: GHT) for Malagasy). This conclusion is compatible with AV reflexives, in which it is once again the internal argument that is reflexive:

(2) a. Ragan idane cingakin ida self OV.see 3sg
    ‘(s)he saw himself/herself’
  b. Ida n-yingakin ragan idane 3sg AV-see self
    ‘(s)he saw himself’

Raising/Binding Interactions: Ngenah ‘seem’ optionally takes an experiencer-PP complement. A raised NP subject can bind an anaphor embedded within that PP (3). This is completely unexpected if Spec-TP is an A-bar position:

(3) Takonang tiang apa [ia, ngenah sig awakne, jelek sajan].
    OV.ask 1st Q 3sg seem to self bad very
    ‘I asked (him) whether he seemed to himself to be very ugly.’

Analysis of OV/AV: Recall that OV is morphologically unmarked, like the English active voice. I argue that Balinese v never assigns Case, so the clause has one fewer case assigner than its English active counterpart. T (not v) assigns Case to the IA, which first raises to raises above the EA in Spec-vP and then to Spec-TP because it cannot receive case in-situ (Boskovic 2007). The EA is incorporated, exempting it from the Case Filter (Baker 1985, passim.). Evidence for incorporation is provided in (4) and (5):

(4) In OV, EA is obligatorily indefinite
    1 I Wayan gugut cicing/*cicing-e ento
       ART W. OV.bite dog dog-DEF that
    ‘A dog/*the dog bit Wayan’
(5) In OV, EA and V must be adjacent
   a. Siap-e uber cicing ke jalan-e
      chicken-DEF OV.chase dog into street-DEF
      ‘The dog chased the chicken into the street.’
   b. uber cicing ke jalan-e siape-e
   c. *uber siap-e cicing ke jalan-e
   d. *siap-e uber ke jalan-e cicing

AV morphology reflects a special additional Case-assigning head (Voc) merged above vP, which provides a new source of case for the IA, which raises to Spec-VocP. T then assigns case to EA, which raises to Spec-TP, much as in English active constructions.

Solving the Balinese Bind: R&V propose that self-anaphors have unvalued φ-features and raise to Spec-vP, where they probe the EA. If in OV, every Balinese IA raises above the EA, we expect anaphors to behave the same. Whether the anaphor continues to Spec-TP (2a) or Spec-VocP (2b) is determined by structure added after the anaphoric relationship has already been established. The behavior of raising (3) follows almost as straightforwardly. The experiencer anaphor covertly adjoins to Spec-vP, where it c-commands the embedded subject and values its φ-feature. The embedded subject raises to Spec-TP for case reasons. Similar examples from Wechsler and Wechsler & Arka in which the raising-to-subject verb is replaced by a raising-to-object verb whose own voice can be varied follow similarly.

Under the proposed analysis, The Balinese Bind dissolves allowing us to capture the facts without special stipulations about the A/A-bar distinction. This is an improvement over previous theories which cannot capture the Balinese Bind (GHT), or which do so via altering the distribution of A/A-bar positions (Travis 1998). Additionally, the account relies on, and thus supports, a novel proposal concerning the Austronesian voice system, which may be successfully applied to other Austronesian languages with some modification.

References
On Differences of ‘the Same’ and the Same Reference to D

Keywords: DP analysis, relational modifiers, comparative syntax

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Introduction The syntax-semantic properties of same in English and Chinese are comparatively examined. We argue that the seemingly adjective same (tong in Chinese) is not always an NP-modifier in Chinese or in English, and it may form a phrasal complex with the definite article in a similar fashion proposed in Kayne (2005) and Leu (2008). We conclude, therefore, that tong entails the presence of a covert definite article in Chinese, which rules in favor of the universal DP claim (Borer 2005, Li 1999, Tang 1990).

Observations Same is an adjective in English, but it does not always behave like a typical one:
(1) a. Our hats are *(the) same  b. Our hats are (*the) nice/red/round
With respect to its semantics, the same is ambiguous and may refer to the sameness in ‘type’ (a group of objects with shared properties) or in ‘token’ (the identical reference):
(2) a. We like the same (type of) music. (e.g., classical music) [same type]
   b. Clark Kent and Superman are the same guy. [same token]
Showing a more transparent syntax-semantics mapping, Chinese has two morphological variants of same (sharing the same root \\textbackslash tong): tong and xiang-tong. While the latter behaves like a typical NP-modifier, the former does not, in the following respects: (i) tong is a bound root (which is commonly found in functional items and compounds in Chinese) that is not compatible with a modifier marker de, and (ii) tong occupies a fixed position (before Numeral-Classifier) different from typical adjectives, as in (3), (iii) though tong-NPs always refer to definite nouns, tong cannot co-occur with a demonstrative, as in (4a), but like demonstratives and quantifiers (i.e., the D-elements), it can license one-omission, as in (4b), and (iv) tong always refers to the same token, as in (5). Examples in (6) further strengthen the contrast between tong and xiang-tong with respect to the type-token difference. A token-referring who-question like (6a) can be answered by tong-NP (as in 6c), but not a type-referring how-question like (6b):

(3) a. yi tiao xiang-tong-de kuzi  b. tong (*de) yi tiao kuzi
   one CL same-SAME-DE trouser same one CL trouser
   ‘the same (kind of) trousers’  ‘the same pair of trousers.’

(4) a. *tong zhe/na yi tiao kuzi (cf. zhe/na yi tiao xiang-tong-de kuzi)
   same this/that one CL trouser this/that one CL same DE trouser
   b. Women dou xihuan zhe/na/mei/tong (yi) ge ren.
   we all like this/that/every/same one CL person.
   ‘We all like this/that/every/the same person.’

(5) a. Ni gen wo shi yi ge xiangtong de ren.
   you and I be one CL same DE person
   ‘You and I are the same (type of) person.’
   b. #Ni gen wo shi tong yi ge ren.
   you and I be same one CL person (very odd under normal circumstances)

(6) a. Q: Chaoren shi shei?  b. Q: Chaoren shi zenyang de ren?
   Superman be who Superman be what.type DE person
   ‘Who is Superman?’ [token]  ‘What kind of person is Superman?’ [type]
c. A: Chaoren gen Kelake shi tong yi ge ren.
   Superman and Clark be same one CL person
   ‘Superman and Clark are the same person.’ [possible answer to (a), but not to (b)]

d. A: Chaoren gen Bianfuxia shi xiang-tong de ren.
   Superman and Batman be same DE person
   ‘Superman and Batman are the same type of person.’ [possible answer to (b)]

Analysis
Kayne (2005) and Leu (2008) argue that demonstratives have a complex internal structure, which consists of a determiner part \( th \)- and a silent PLACE projection:
\[
(7) \text{this car} = \text{[[D}_th\text{-} + \text{HERE}] \text{car]}
\]
We argue that such a claim is not limited to the silent PLACE, but can be carried over to the syntax of the same NP in English, where the and same form a phrasal complex (the idiosyncrasy of the same in (1) is also accounted for):
\[
(8) \text{the same car} = \text{[[the + same] car]}
\]
We adopt the same analysis for the syntax of tong NP, and the only difference is that in Chinese, the is not pronounced:
\[
(9) \text{[[D}_THE + tong] yi ge ren} \quad \text{‘the same person’}
\]
\[
\text{same one CL person}
\]
The phrasal complex analysis then provides a straightforward account for all properties of tong.
(a) tong behaves on a par with a functional item since it forms a complex unit with the silent definite article, (b) tong competes for the same position with demonstratives, and hence the complimentary distributions, and (c) tong always refers to sameness of token since it ‘modifies’ a silent determiner, which is responsible for the token-referentiality (unlike its NP-modifier counterpart).

References:
Modeling Domain-Narrowing Phonological Change
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**Background.** Stratal-cyclic models (e.g., Stratal OT, Lexical Phonology) allow for phonological processes to apply in multiple domains, adding another potential dimension for phonological change as a process’s domain may change with time. Post-nasal plosive deletion in English (e.g., \(\text{prolo[ŋ] → prolo[ŋ]}\)) (Borowsky 1993) is an example of a process that narrowed its domain over time, applying first at only the phrase level, then at the phrase and word levels, and finally at the phrase, word, and stem levels (Bermúdez-Otero 2011). Analogical changes of this type provide an opportunity for computational modeling: what characteristics of the input and learning mechanisms are required to cause reanalysis?

**Proposal.** We develop a computational account for why such domain-narrowing changes occur. We adopt a productivity-based model for phonological learning and demonstrate through simulation that it will iteratively reanalyze post-nasal plosive deletion in the same sequence as the observed change. The reanalyses require a combination of difficulty in identifying in which level deletion occurred and restrictions on word-level resyllabification.

**Acquisition mechanisms in change.** Learners must identify robust patterns in the input. Based on a real-time processing criterion and the Zipfian distribution of items in natural language, a *productive* (Yang 2005) generalization is one that when applicable to \(N\) items has fewer than \(N/\ln(N)\) exceptions. The limit on exceptions is called the *tolerance threshold*; if there are too many exceptions, a process cannot be considered a useful generalization. Counts for productivity are computed over word *types* as opposed to word *tokens*. We hypothesize that the input is often underdetermined regarding in which level a rule applies; a learner may innovate by identifying productive generalizations in a narrower domain than in the grammar that generated the input. For example, if the input was generated by a grammar with only a phrase-level rule, it is possible that the learner would instead learn a word-level rule provided that the number of exceptions is not too high.

**Simulation.** To simulate acquisition, we assembled a corpus of infant-directed speech from all US English data (2.89 million words) in the CHILDES database (MacWhinney 2000). We simulated stages of the diachronic evolution of post-nasal plosive deletion analyzed by Bermúdez-Otero 2011, beginning at Stage 1 where it has become phonologized as a phrase-level process. Although we use the term *process*, we make no assumptions regarding the mechanism of application (e.g., derivational or non-derivational); the question for the learner is in which level deletion occurs.

Because of resyllabification at the phrase level, contexts such as prolo[ŋ] glit provide apparent exceptions for a word-level rule. Since a single word can appear in varying phrasal contexts, only some of which will show deletion, the learner must determine whether each word with conflicting information should be treated as an exception. Even if the learner is eager to adopt generalizations and does not count conflicting cases as exceptions, the number of exceptional word types (197) exceeds the tolerance threshold (169) based on a total of 1199 word types eligible for the deletion process. The conflation between the word and phrase-level targets is not enough for the learner to accept a word-level generalization; additional pressure is required to trigger reanalysis. This suggests that phrase-level resyllabification may be more restricted in its application; historical accounts of post-nasal plosive deletion (Elphinston 1765:148–149) support restrictions. Resyllabification of a final /g/ appears to have only been possible when the first syllable of the following word is unstressed and onsetless. Simulating these restrictions predicts the change would proceed from the phrase to the word level as the number of exceptions is lower (147). In the next generation of learning, the input reflects application at the word and phrase levels. The high frequency
of bare stems as words results in reanalysis of word-level application as stem-level; there are 1075 participating stems and 25 apparent exceptions, well below the tolerance threshold (155).

This simulation gives the first mechanical account of how changes of this type can occur and suggests that a combination of reduced application of word-level resyllabification and statistical properties of the input were required for the post-nasal plosive deletion change to proceed.

Extensions. The acquisition model presented here predicts that in languages in which bare stems less frequently surface as words, phonological processes may narrow from the phrase level to the word level but will fail to further narrow to the stem level. This is corroborated by evidence from Dutch coda devoicing (Booij 1997) and in Spanish nominal forms (Bermúdez-Otero 2013).

References


The role of verbal aspect in the syntax of resultatives: the case of Korean
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Keywords: resultatives, directed motion constructions, verbal aspect, Korean

This paper identifies two types of resultatives in Korean, a distinction overlooked in previous studies (Wechsler & Noh 2001, Shim & den Dikken 2008, Son 2008: cf. Washio 1997). One type is formed with change-of-state (COS) verbs (Type-A) and another with activity-denoting verbs (Type-B).

(1) Type-A: kkay-‘break’, pwuswu-‘destroy’, kkunh-‘tear’, calu-‘cut’...
Type-B: twutulki-‘pound/hammer’, takk-‘wipe’, ssis-‘wash’, ...

Both types have a transitive form, but they differ with respect to telicity: Type-A verbs are compatible with in-adverbials; Type-B verbs are compatible with for-adverbials.

    John-Nom bottle-Acc 10 min. in/for break-Past-Decl
    ‘John broke the bottle in/?for 10 minutes.’

    John-Nom metal-Acc 10 min. for/in pound-Past-Decl
    ‘John pounded the metal for/?in 10 minutes.’

Both types of verbs can combine with the morpheme -(e)ci to form an intransitive, but crucially a secondary predicate is required with Type-B but not with Type-A verbs.

(4) Pyeng-i (cal-key) kkay-eci-ess-ta.
    bottle-Nom (tiny-key) break-(e)ci-Past-Decl
    ‘The bottle was broken (into tiny pieces).’

(5) Kumsok-i #(yalp-key) twutulki-eci-ess-ta.
    metal-Nom thin-key pound-(e)ci-Past-Decl
    ‘The metal was pounded thin.’

This distinction can be modeled within a theory where the aspectual dimensions of verbs are syntactically represented (such as Hale & Keyser 2002). COS (but not activity) verbs lexicalize the “result” and the light verb -(e)ci lexicalizes the “change” part. The structure for (4) would be as in (6), constructed via the ordinary Merge mechanism. The optional adjective, when present, modifies the result; cal-key kkay in (6b) is a complex predicate.

(6) a. [V pyeng-i [V-(e)ci][V kkay] -(e)ci]]
   b. [V pyeng-i [V-(e)ci][A cal-key][V kkay] -(e)ci]]

We argue that the syntax of (5) is different from that of (4): while (4) is composed of a single event, (5) is composed of two events. We argue the syntax of (5) is comparable to that of (7). Zubizarreta & Oh (2007) propose to analyze (7) as a simultaneous serial verb construction (SSVC), where the activity-denoting event is co-extensive with the directed motion event. Z&O model the meaning of (7) in syntactic terms by having the structure headed by the activity-denoting verb talli-‘run’ adjoin to the head of the structure headed by the light verb ka- (8); the “running” event expresses (via modification) the “means” by which the directed-motion event comes about.

(7) John-i kongwen-ey talli-e ka-ss-ta
    John-Nom park-Loc run-L go-Past-Decl
    ‘John ran to the park.’
(8) \[ v_{-ka} \text{John} \ [v_{-ka} \text{kongwen-ey} \ [v \text{talli-} ka-]] \]

Likewise, in (5), the structure headed by twutulki- (pound) adjoins to the light verb -(e)ci (9); the pounding event expresses the mean by which the COS comes about.

(9) \[ v_{-(e)ci} \text{kumsok} \ [v_{-(e)ci} \text{yalp-key} \ [v \text{twutulki (kumsok)}] -(e)ci]] \]

While in (6b) the adjective is a modifier of the complement of -(e)ci, in (9) the adjective is the complement of -(e)ci.

The transitive counterparts of (4)-(5) are analyzed in the same way (despite absence of overt -(e)ci): those with Type-A verbs contain a structure comparable to (6b), and encode one event, whereas those with Type-B verbs contain a structure comparable to (9), and encode two events (except the agentive/causing event).

Our proposal receives support from the contrast in (10): it is easier to topicalize the adjective independently from the verb in (9) than in (6b):

(10) a. Napacakha-key-nun John-i kumsok-lul twutulki-ess-ciman...
    Flat-key-Top John-Nom metal-Acc pound-Past-but
    ‘John pounded the metal flat, but... (its shape was not so pretty)’

    b. ??Cal-key-nun John-i pyeng-ul kkay-ess-ciman...
    tiny-key-top John-Nom bottle-Acc break-Past-but
    ‘John broke the bottle into tiny pieces, but... (its shape was not so pretty)’

Two arguments further support the proposed analysis: the interpretation of frequency adverbs and the interaction of negation with quantifiers. Due to space limitation, we present only the former. A single-event structure (11) only has a restitutive reading, whereas a two-event structure (12) has both a restitutive reading and a non-restitutive reading.

    John-Nom that chunk.of.metal-Acc very flat-key three times pound-Past-Decl
    (lit.) ‘John pounded that chunk of metal very flat three times.’

    John-Nom that bottle-Acc very tiny-key three times break-Past-Decl
    (lit.) ‘John broke that bottle into very tiny pieces three times.’

As expected, SSVCs headed by ka- also allow both readings.

    John-Nom park end-until ball-Acc three times kick go-Past-Decl
    (lit.) ‘John kicked the ball until the end of the park three times.’

**Conclusion:** The verbal aspectuality determines the syntax of resultatives. The novel proposal is that with activity-denoting verbs, Korean uses SSVCs to form resultatives.

(750 words, except the title, references, and keywords)

Restrictions on Wh-in-situ in Kavalan and Amis

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There are two competing approaches that aim to explain whether an interrogative subject can stay in-situ in Austronesian languages. According to Richards (1998) and Sabel (2003), a wh-phrase cannot occupy the subject position in Tagalog and Malagasy. They suggest that the so-called subjects in Austronesian languages are topics, which must be definite or specific and are thus incompatible with the semantics of a wh-phrase. Law (2006), however, claims that as long as a wh-subject can be formally marked in the same way as its non-interrogative counterpart, it can stay in-situ. Presenting the syntactic restrictions on the wh-in-situ constructions in Kavalan and Amis, two Austronesian languages in Taiwan, the present paper argues that no single approach is able to accommodate the empirical facts in both languages.

All wh-phrases in Amis, regardless of their grammatical function, can stay in-situ. This pattern conforms to Law’s (2006) observation that wh-phrases in Austronesian languages can stay in-situ as long as they can receive the same formal marking as their non-interrogative counterparts. The crucial formal marking requirement in Amis is that the absolutive subject must take the overt absolutive case marker ku (for common nouns) or the non-common noun marker ci. The absolutive case marker can be attached to wh-phrases that inquire about non-human entities; the human interrogative phrase cima inherently takes the marker ci. Wh-phrases in the subject position in Amis can fulfill this formal requirement and are thus allowed to stay in-situ. This requirement on the formal marking of the subject can be explained by Landau’s (2007) analysis of EPP. T in Amis has an EPP feature that selects for a phonologically overt D, so the subject in Spec, TP must be headed by an overt D, or otherwise the derivation would crash at PF.

However, Law’s (2006) analysis cannot be extended to Kavalan, where interrogative phrases cannot stay in-situ in the subject position, except for mayni=ay ‘which=REL’. The distribution of in-situ wh-phrases in Kavalan supports Richards’s (1998) and Sabel’s (2003) proposal. The absolutive subject in Kavalan is interpreted as definite and exhibits strong topic persistence (Huang and Tanankingsing 2011; Liao 2002). It is assigned an interpretable [op] feature and moves to Spec, TopP to check the uninterpretable [op] feature on Top. A wh-phrase in the absolutive subject position cannot meet this requirement and thus the derivation of a sentence with an absolutive wh-phrase crashes at LF.

The reason why the wh-phrase headed by mayni=ay ‘which=REL’ can stay in-situ in the subject position is due to its D(iscourse)-linking status. I argue that the distinction between D-linking and non-D-linking in Kavalan is a syntactic phenomenon. One noticeable difference between a D-linked wh-phrase and a non-D-linked wh-phrase in Kavalan is that the former takes an additional marker =ay and forms a modification structure with its following noun. The marker =ay functions to introduce diverse kinds of modifiers of a noun. Following den Dikken and Singhapreecha’s (2004) approach to
modification structure, I propose that the modification maker =ay heads a functional projection FP and triggers DP-internal Predicate Inversion, which results in the syntactic structure of restrictive modification. As an interrogative, mayni ‘which’ introduces a free variable x into the derivation. Moreover, the domain of this free variable is restricted by the subject NP in the small clause. In Kavalan, it is this syntactic configuration of restrictive modification that contributes to the D-linking interpretation of a wh-phrase. Due to its D-linking status, mayni-phrase can move to Spec, TopP to check the uninterpretable [op] feature on Top and stay in-situ in the subject position.

This analysis is corroborated by the patterns of in-situ zanitiana ‘whose’ and tani ‘how many’. Although zanitiana ‘whose’ is not allowed in the subject position, its grammaticality does improve if it occurs in the =ay construction. By contrast, although tani ‘how many’ seems to be an interrogative modifier of a noun, it cannot take the modification marker =ay. This suggests that the structure of a noun phrase with tani ‘how many’ differs from the modification structure of mayni=ay ‘which=REL’. It is not derived via DP-internal Predicate Inversion induced by the linker. Therefore, an in-situ tani-phrase in the subject position is ungrammatical regardless of the presence of =ay.

Austronesian languages do not all exhibit the same wh-in-situ patterns and no single approach can capture the different empirical constraints in Kavalan and Amis. The wh-in-situ patterns in Kavalan further suggest that the D-linking status of a wh-phrase can determine whether it can stay in-situ and that D-linking results from a specific syntactic structure.

References
The Syntax of Passives under the Smuggling Approach

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Key words: English be passives, Chinese bei-passives, smuggling, control-raising controversy

Collins (2005) put forward a smuggling approach to the English be passive under which by is the head of VoiceP, taking a vP complement. The external argument is merged in Spec, v in the same way as in the active as in (1a). Such an assumption conforms to Baker’s UTAH. The object the book moves to Spec, I in 2 steps: first the participle phrase written the book is moved to Spec, Voice as in (1b), and then the book is moved to Spec, I as in (1c). In this process the internal argument is successfully smuggled to Spec, I position crossing the external argument without violating Relativized Minimality:

(1) a. [IP e [r [i was] [VoiceP [Voice [voice by] [v [John [v [PartP written the book]]]]]]]
   b. [IP e [r [i was] [VoiceP [PartP written the book]] [Voice [voice by] [v [John [v [PartP t]]]]]]]
   c. [IP the book [r [i was] [VoiceP [PartP written t]] [Voice [voice by] [v [John [v [PartP t]]]]]]]

The underlying structure of be passives proposed by Collins comes close to that of Chinese bei passives proposed by Huang (1999). A major difference occurs in surface word order: in English, the main (participle) VP appears before the external argument, but in Chinese the VP follows the external argument. To explain this difference, we assume that unlike English passives, Chinese passives do not involve smuggling. We will provide an explanation to this assumption and extend our analysis to Japanese.

According to previous analyses (Huang 1999 a.o.), Chinese bei passives have structures of control/predication, as in (2). In the long passive with agent, the passive verb bei takes an IP complement which involves null operator movement of the object and forms a complex predicate with bei. In the short (agent-less) passive, bei takes a VP complement that involves PRO-movement and control:

(2) a. Zhangsan, bei [IP OP, [IP Lisi da-le t]] (long passive: OP predicates on Zhangsan)
    Zhangsan, bei Lisi hit-Perf
    ‘Zhangsan was hit by Lisi.’
   b. Zhangsan, bei [VP PRO, da-le t] (short passive: PRO controlled by Zhangsan)

Since neither the A’-movement of the OP nor the A-movement of PRO violate minimality, smuggling is not needed. Recent research (Huang 2011) shows that bei passives can also be analyzed as raising structures. This means that the object may be moved to Spec, TP overtly, which is subject to minimalia.

We suppose that such raising is possible without smuggling, as shown in (3).

(3) a. [TP [r T ... [VoiceP [Voice [Voice bei] [v [Lisi [v [VP da-le Zhangsan]]]]]]]]
   b. [TP [r T ... [VoiceP [Voice [Voice bei] [v [Zhangsan, [v [Lisi [v [da-le, [v [PartP t]]]]]]]]]]]
   c. [TP Zhangsan, [r T ... [VoiceP [t [Voice [Voice bei] [v [t [v [VP Lisi [v [da-le, [v [PartP t]]]]]]]]]]]]]

In (3a), bei is Voice, taking a vP complement, the Spec of which is occupied by the external argument. The internal argument Zhangsan moves to outer Spec of vP as in (3b), en route to Spec, VoiceP and Spec, TP without violating any minimalia conditions. This mode of derivation is available in Chinese but not English, because Chinese allows objects to be preposed to a pre-vP position (Shyu 1995), as in (4), in which the object can be preposed to the Specifier of a Focus phrase (FP), a position above vP but below TP. If the object moves to Spec, FP directly crossing the external argument in Spec, vP, minimalia is
violated. Getting insight from Chomsky (2001), we assume that v in Chinese has EPP features (e.g. the focus feature) which enable v to project an outer Spec, serving as an intermediate landing site for the preposed object.

(4) \[ TP \text{Zhangsan} [_{TP} \tau [_{FP} \text{na-bu} \text{dianying}_5] [_{VP} t_j [_{VP} t_k [_{VP} t_i] [_{VP} \text{san} ci [_{VP} v t_l \text{DP} t_j]]]]]] \]

\text{‘Zhangsan watched that film three times.’}

Since Chinese has object preposing, in passives v has an extra Spec, vP serving as an intermediate landing site for the promoted object. English does not have object preposing, so the extra Spec, vP position is not available in passives. Smuggling has to apply to avoid violation of minimality.

We suggest that the Japanese \text{nǐ} passive does not involve smuggling either, given the availability of object scrambling. This can also explain why Chinese \text{bei} and Japanese \text{nǐ} passives do not allow external arguments to be relativized, while English \text{be} passives do.

**Selected References:**
**Sentential subjects and the verbs seem and suck**  
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1. **Introduction:** The goal of this paper is to discuss the asymmetry in (1)-(2) (from Alrenga 2005) in a theory where sentential subjects are real subjects in SpecTP.

(1) That the Giants lost the World Series really {sucks/blows/bites/stinks}.
(2) *That the Giants lost the World Series {seems/happens/appears/turns out}.

I argue that this contrast can be accounted for by combining theta-features and the syntactic operation reprojection.

2. **Background:** There has been a long-term dispute regarding the position of sentential subjects. Emonds (1976), Koster (1978), Stowell (1981), and Alrenga (2005) all argue that sentential subjects are not real subjects, but rather topics, and that something else occupies SpecTP. In contrast, Rosenbaum (1967), Delahunty (1983) and Davies and Dubinsky (2009) argue that sentential subjects are real subjects. They show that the data in Koster, where sentential subjects that occur inverted with auxiliaries are bad, are problematic. Koster (1978) argued that (3) is bad whereas Delahunty (1983) showed that (4) is good.

(3) *Did [that John showed up] please you?
(4) To what extent did [that Fred failed to show up] anger those of his devoted fans who had waited by the stage door since dawn of the previous day?

Davies and Dubinsky discuss similar data for topics and argue, as Delahunty does, that the relative unacceptability of many of Koster’s examples may be a consequence of the weight and ‘prosody’ of the relevant constituents. I will therefore assume that sentential subjects are in SpecTP.

3. **A problem:** Alrenga’s (2005) main concern is the contrast between (1) and (2). He follows Koster and argues that sentential subjects are analyzed as topicalized phrases linked to a phonetically null DP in SpecTP. This null DP is an argument, and Alrenga captures the contrast by arguing that verbs like *seem* does not select for a DP, only a CP. Alrenga furthermore claims that moved clauses behave like DPs (see also Han 2005, Takahashi 2009). This paper investigates how we can analyze the contrast between (1) and (2) when sentential subjects sit in SpecTP.

Alrenga (2005: 197) points at (7) and (8), where a DP subject is possible for *sucks* but not for *seems*.

(7) {This/The Giant’s loss} (really) sucks.
(8) *{This/The Giant’s loss} (really) seems.

Alrenga’s analysis predicts this pattern, but he does not predict that sentences such as (9) and (10) are good, cp. (2) with (9).

(9) That the Giants lost the World Series seems unlikely.
(10) That the Giants lost the World Series seems to have created a lot of disappointment.

Alrenga (2005: 197) attempts to account for (10) by assuming that the null DP moves from the embedded clause and into the main clause SpecTP. However, in (11), a null DP also needs to move to SpecTP.

(11) It seems that the Giants lost the World Series. That is not possible in (11), but the sentence is still good. Thus there is a problem for Alrenga’s analysis.

4. **A new proposal:** As a starting point to the analysis I will adopt the view in Alrenga (2005), Davies and Dubinsky (2009), and Takahashi (2009) that sentential subjects have a NP/DP shell. Thus a CP becomes a NP/DP when it moves into subject
position. My addition to this is that this operation is only licit when the sentential subject gets a theta-feature. Under this view, (2) is bad because i) the that-clause does not have a theta-role, and ii) I assume that the EPP only admits NP/DPs. (8) is bad because there is no theta-feature for the DP. (9) is good because the that-clause gets a theta-role from unlikely. The verb suck is different since it is unergative and thus has a theta-role for a sentential subject (1) or a DP (7). In clauses like (11) there is no movement and thus no problem.

I will discuss how to technically implement the idea that a CP with a theta-feature becomes a NP when it moves into subject position. I will suggest that this can be achieved through what is known as reprojection (Hornstein and Uriagereka 2002), which is to say that the label of a projection can change in the course of a derivation (cf. Cecchetto and Donati 2011, Chomsky 2012). I exploit Kayne’s (2008) proposal that the complementizer that is a demonstrative and thus has nominal features.

5. **Conclusion:** This paper argues that sentential subjects are subjects and argues that differences between seem-like verbs and suck-like verbs follow from theta-features and reprojection.

[Word count: 738 words]

**Selected references**

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**Feature-Inheritance: Its Implications for Subject Movement**

*Keywords: feature-inheritance, phases, valuation, root/embedded contrasts, T-to-C movement*

This paper explores the mechanism of feature-inheritance (= (1)) and considers its logical consequences for subject (wh-)movement in root and embedded phases. Richards (2007) proposes that unvalued features are inherited for Value-Transfer Simultaneity: Valuation (Agree) must be simultaneous with Transfer for the proper distinction of unvalued features. Given that phase-head complements (TP, VP) cyclically get Transferred (= (2)), Richards argues, feature-inheritance to non-phase heads (T, V) can make the valuation of unvalued φ-features simultaneous with Transfer, thanks to which the derivation can converge. I first argue that this approach to feature-inheritance has an interesting implication for the root C-phase. In the root C-phase, unlike embedded C/φ*-phases, its edge must be Transferred along with its complement; otherwise, it would never be Transferred (= (3)) (Chomsky 2004). If so, Value-Transfer Simultaneity can be achieved without feature-inheritance. I show that the mode of Transfer and Value-Transfer Simultaneity do not motivate feature-inheritance in the root phase: φ-features can remain on the root C.

I present three pieces of evidence for the absence of feature-inheritance in the root C-phase. First, in subject wh-movement in Berber, subject-verb agreement is observed in the embedded clause (= (4a)), while the root clause shows ‘anti’-agreement (= (4b)). Provided that the subjects Agree in φ-features in both (4a) and (4b), the contrast should not be reducible to Agree in φ-features. Suppose that movement to Spec-T is crucial to the realization of subject-verb agreement (cf. Brandi and Cordin 1989). Given the assumption on the EPP in (5), anti-agreement in (4b) shows that there is no movement to Spec-T for the lack of feature-inheritance in the root C-phase (= (6a)). On the other hand, the subject moves to Spec-T for the inheritance of φ-features in the embedded C-phase (= (6b)). Thus, subject-verb agreement is realized in (4a). Second, the subject in Japanese is more naturally marked with a topic marker -wa in root clauses (= (7a)), but in embedded clauses (e.g., a relative clause), only a nominative marker -ga is allowed (= (7b)). Assuming that Japanese case particles are structurally dependent, with -wa attached to a phrase external to TP and -ga to a phrase internal to TP as in (8) (Kishimoto 2009, Kuroda 1992, Saito 1985), the above contrast shows that the subject moves to Spec-C for the lack of feature-inheritance in (7a) (hence, its -wa marking), while it moves to Spec-T for feature-inheritance in (7b) (hence, its -ga marking). Finally, in Yiddish subject wh-movement, expletive es merger is possible only in the embedded clause (= (9)) (Diesing 2005). It has been assumed that expletives are Merged in Spec-T to satisfy an EPP property of T. Given the assumption in (5), the impossibility of expletive Merger in the root clause suggests that φ-features are not inherited in the root C-phase.

Having argued that feature-inheritance can be suspended in the root C-phase for full-phase Transfer, I nevertheless point out that Value-Transfer Simultaneity leaves room for feature-inheritance in the root C-phase; that is, full-phase Transfer does not force the lack of feature-inheritance. In addition, there is an argument in the literature that feature-inheritance is motivated for Case-valuation (Epstein et al. 2012). These arguments suggest that full-phase Transfer is not the reason for the absence of feature-inheritance in the root C-phase and that it cannot explain the root/embedded contrasts we have discussed above. I claim that the lack of feature-inheritance in the root C-phase comes from T-to-C movement, not from full-phase Transfer. I propose that T-to-C movement prevents feature-inheritance, forcing its absence in the root C-phase and making Case-valuation possible even without feature-inheritance (= (10)). This proposal can accommodate the examples considered above ((4), (6), (7), (9)), where T-to-C movement takes place in root wh-interrogatives as well as Japanese root declaratives (Koizumi 1995, 2000) and feature-inheritance is blocked. Moreover, the proposal can nicely explain subject-movement contrasts within root clauses exemplified in (11)-(13), where φ-features are inherited for Case-valuation because of the lack of T-to-C movement and hence, the subject moves to Spec-T in the (a) examples but not in the (b) examples due to T-to-C movement (McCloskey 2000, May 1985).

The present study argues that the possibility of feature-inheritance is automatically determined by the interaction of independent assumptions in syntax (cf. Legate 2011, Obata 2010, Ouali 2008). Furthermore, it supports the assumption that T-to-C movement has narrow-syntactic consequences.
Examples and Figures
(1) \([\text{CP} \text{C}_{\text{[Φ]}} \text{TP} \text{T} \ldots] \rightarrow [\text{CP} \text{C}_{\text{[TP} \text{T}_{\text{[Φ]}} \text{T} \ldots]}] \) **Feature-inheritance**

(3) \( [\text{CP} \text{C}_{\text{[TP} \text{T} \ldots \text{TP} \ldots]}] \) **Transfer**

(4) a. ma ag inna ali **the3la (*3lan)** araw
   who Comp 3.s.said ali 3sf.saw (*saw.Part) boys
   ‘Who did Ali say the boys?’

b. mani thamttut ag **3lan (*th3la)** araw
   which woman Comp see.Perf.Part (*3sf.see.Perf) boys
   ‘Which woman saw the boys?’

(5) The EPP is an edge-feature borne by \( φ \)-features (Epstein et al. 2012) \( (\rightarrow \phi \)-features raise/merge an element to the spec of the head \( α \) with \( φ \)-features).

(6) a. \([\text{CP} \text{WH}, \text{C}_{\text{[Φ]}} \text{TP} \text{T} \ldots \text{t}_i \ldots ]\)

b. \([\text{CP} \text{WH}, \text{C}_{\text{[TP} \text{WH}_{\text{[Φ]}} \text{T} \ldots \text{t}_{ij} \ldots ]}\)

(7) a. Taroo-wa/\(^\text{wa} ga\) kinoo LGB-o yon-da.
   Taroo-Top/Nom yesterday LGB-Acc read-Past
   ‘Taroo read LGB yesterday.’

b. [OP, [ Taroo-ga/\(^\text{wa} \) kinoo \( t_i \) kat-ta ]] hon
   Taroo-Nom/Top yesterday buy-Past book
   ‘the book Taroo bought yesterday’

(8) \([\text{CP} \text{DP} \text{C}_{\text{[TP} \text{DP} \text{T} \ldots ]}\]

\(\text{DP-wa} \ \text{DP-ga}\)

(9) a. Ikh veys nit [CP ver [TP es iz gekumen]].
   I know not who Expl is come
   ‘I don’t know who has come.’

b. [CP Ver hot [TP (*es) gegeesn dos broyt]]?
   who has Expl eaten the bread
   ‘Who ate the bread?’

(10) \([\text{CP} \text{C}_{\text{[Φ]}} \text{TP} \text{T} \ldots ] \rightarrow [\text{CP} \text{C}_{\text{[TP} \text{C}_{\text{[Φ]}} \text{TP} \ldots T_{\text{i}} \text{T}_{\text{i}} \ldots ]}]\)

(11) a. \(*\text{They,}^i_{\text{were}}^i_{\text{arrested}}^i_{\text{all \text{t}_i \text{last \text{night}.}}}_{\text{last \text{night}.}}\)

b. Who, was arrested all \( t_i \) in Duke Street?

(12) a. Someone likes everyone. \((\text{someone} > \text{everyone}, \text{everyone} > \text{someone})\)

b. Who loves everyone? \((\text{who} > \text{everyone}, \text{everyone} > \text{who})\)

(13) a. Kambale \( α\)-lang\( I\)ra Marya. 
   Kambale agr-saw Mary
   ‘Kambale saw Mary.’

b. IyOndI \( γ \)O \( u\)-lang\( I\)ra Marya? \( \text{ANTI-AGREEMENT} \)
   who that anti-agr-saw Mary
   ‘Who saw Mary?’

Selected References
Introduction. Recent work has shown that many apparent cases of phi-feature agreement instead involve clitic doubling (e.g. Preminger 2009; Nevins 2011), leading Nevins (2011:960) to tentatively endorse Woolford’s (2008:8) proposal that “[t]here can only be one instance of true agreement per clause”; any other apparent instances must be clitics. While this may often be true, I will argue that the theory must nevertheless continue to permit multiple instances of true phi-agreement in the clause. My argument comes from a significant diachronic change in the Algonquian languages in which the nominal agreement paradigm was transferred to the verb and layered atop the original verb inflection, creating certain unusual properties that follow naturally from the inflection’s nominal origins. Although this change is robustly and uncontroversially reconstructed (Goddard 1967, 1974, 2007; Proulx 1982), its theoretical implications have not been explored. I will argue that the Algonquian facts reveal the distribution of phi-agreement probes to be essentially random: phi-agreement can be hosted by any clausal functional head, with their position and featural content often resulting from nothing more than historical accident. This departure from rigid cartography likely reflects the fact that, unlike other features, phi-agreement completely lacks semantic content (cf. the difficulty of locating agreement in Cinque’s (1999) functional hierarchy), thus making the distribution of agreement affixes an element of the grammar that is particularly susceptible to evolutionary factors rather than purely structural principles.

The Algonquian agreement shift. The inflection of the Proto-Algonquian (PA) noun is shown in (1), based on Ritter and Rosen’s (2010) analysis of Blackfoot. An Infl head agrees with the possessor for person and number and an affixal definite D agrees with the head noun for number and gender. (Arrows indicate agreement; all heads but Num are overt and undergo head-movement to yield the surface order.)

(1) \[ \text{DP} \quad \text{D} \quad \text{[NumP Num [IP [VoiP PSSR Voice [adp n Root ]]]]]} \quad \text{(surface order: Root-n-Voice-Infl-D)} \]

In PA main clauses, the nominal Infl and D heads were grafted onto the clausal projection as shown in (2).

(2) \[ \text{FinP} \quad \text{Fin} \quad \text{[ModP Mod [IP Infl [VoiP SUBJ Voice [v OBJ Root ]]]]] \quad \text{(surface: Root-v-Voice-Infl-Mod-Fin)} \]

Retained from the original verb morphology was a Voice head that agreed with both the subject and the object for person; this is the phi-probe that appears in Béjar and Rezac’s (2009) Cyclic Agree analysis of agreement in the Algonquian language Nishnaabemwin. The borrowed nominal morphemes were added above the VoiceP and continue to probe for the same features that they did in the nominal domain: Infl, the former possessor agreement suffix, began to agree with the subject (the closest goal) for person and number, while Fin (a tentative identification of former D) began to agree with the object for definiteness, person, number, and gender—all of the features that it carried in the DP. The transplanted nominal agreement morphemes thus took on exactly the behaviours that probe-goal theory would predict (assuming that Infl values the Case of the subject, rendering it inaccessible to probing by Fin).

Algonquian agreement is not cliticization. The Algonquian agreement shift resulted in the clausal spine containing three distinct phi-probes (Voice, Infl, and Fin). Diagnostics proposed in the recent literature provide extensive evidence that the morphemes involved are not clitics. Unlike clitics, they do not exhibit omnivorous number effects, tense-invariance, clitic climbing, or conditions on doubling (Nevins 2011), and two members of the same series can never co-occur (Woolford 2008). Furthermore, the Algonquian verb contains an additional agreement morpheme that clearly is a clitic (Halle and
Marantz 1993): a proclitic that agrees with the subject for person and can be separated from the following verb stem by auxiliary-like particles. The contrast between the behavior of this proclitic and the other agreement morphemes strengthens the case for analyzing the other morphemes as true agreement.

**Sources of multiple agreement affixes.** The verbal agreement pattern in (2), as continued in various contemporary Algonquian languages, may on its own be sufficient to demonstrate that the clausal spine can contain multiple instances of true agreement, but it is the development from (1) to (2) that shows why this possibility must be admitted: morphosyntactic change can introduce new agreement affixes into a given syntactic domain, layering them on top of existing affixes. In at least some cases, then, the distribution of agreement affixes is essentially an accident, and there is no reason to assume a governing principle that allows only one instance of true agreement per clause.

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PERSON climbing up a tree:
On the grammaticalization of a sign language auxiliary

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I. Background. Studies on sign language (SL) grammaticalization (e.g. Sexton 1999; Pfau & Steinbach 2011) have demonstrated that most of the diachronic changes from lexical to functional element parallel those previously described for spoken languages (Heine & Kuteva 2002). In addition, some modality-specific patterns have been identified, in particular pathways from gestural to lexical elements (Wilcox 2007).

To date, basically all studies on SL grammaticalization are either descriptive in nature or embedded within functional-cognitive theories. In contrast, we take a generative perspective on SL grammaticalization, adopting ideas by Roberts & Roussou (2003, R&R), who suggest that grammaticalization is basically “reanalysis ‘upwards’ along the functional structure” (R&R 2003: 71), or, put differently, that grammaticalization is ‘up the tree’ (van Gelderen 2011). Amongst other things, R&R show that (i) verbal elements are commonly reanalyzed as I- and subsequently as C-elements and that (ii) features typically associated with the DP-domain may become associated with functional heads in the clausal domain (e.g. D-to-C).

II. Case study: PERSON. Following an overview of some of the attested modality-independent pathways, we will zoom in on one specific grammaticalization path attested in German SL (DGS), the lexical source of which is the noun PERSON (1a). In (1a), PERSON is localized in signing space by the pointing sign INDEX, but occasionally PERSON itself is localized by articulating it at a specific locus (1b). Furthermore, PERSON can be used as an indexical element localizing human referents in signing space (1c), thus serving a function that is usually fulfilled by INDEX. Clearly, in this use, the lexical meaning of PERSON is redundant. The semantics of the source noun are further weakened when used as an agreement auxiliary. Many SLs distinguish agreeing verbs, which can be modulated such that their beginning/end point coincides with loci in signing space (e.g. 1VISIT₃a in (1c)), and plain verbs, which have a fixed form (e.g. LIKE in (1d)). In the context of the latter, some SLs employ dedicated auxiliaries to express subject/object agreement. The DGS auxiliary PAM (Person Agreement Marker; (1d)) is derived from the noun PERSON, but is void of lexical meaning and only serves to express agreement in the context of plain verbs (Steinbach & Pfau 2007).

(1) a. INDEX₁ THINK INDEX₁ [PERSON INDEX₃a] KNOW
   ‘I think I know this person.’

   b. INDEX₂ PERSON₃a HELP₃a
   ‘Will you help this person?’

   c. [WOMAN PERSON₃a] TOMORROW INDEX₁ VISIT₃a
   ‘I will visit the/that woman tomorrow.’

   d. INDEX₁ POSS₂ BROTHER INDEX₃ LIKE PAM₃a
   ‘I like your brother.’

1 “Modality” here refers to the modality of language transmission, i.e. the oral-auditive modality of spoken languages vs. the gestural-visual modality of sign languages.
III. Structural changes. We assume that the first step in the grammaticalization of PERSON is its localized use (1b), whereby it acquires spatial features, presumably by N-to-D movement, which the source noun lacks (2a). Once PERSON is endowed with spatial features, the stage is set for the crucial next step in its grammaticalization: PERSON loses its categorial features and becomes a determiner-like indexical sign which (just like INDEX) is merged in a functional head in the periphery of DP and may combine with another noun (2b). In other words: we are dealing with an instance of ‘upward’ grammaticalization towards the extended projection of the noun and thus with the reanalysis of an XP as head. Once PERSON has acquired spatial properties, it is an ideal candidate for an element that realizes agreement. Thus, in a third step, PERSON leaves the DP-domain and is merged (as PAM) within the inner functional layer of the clausal domain, i.e. AgrO, where it spells out agreement features, presumably after moving from AgrO to AgrS (2c).

\[
\begin{align*}
\text{(2) a. } & \quad [\text{DP } D[\text{NP PERSON}]] & > & \quad [\text{DP } D[\text{PERSON}_x][\text{NP tPERSON}]] \\
\text{b. } & \quad [\text{DP } D[\text{PERSON}_x][\text{NP tPERSON}]] & > & \quad [\text{DP } D[\text{PERSON}_x][\text{NP NOUN}]] \\
\text{c. } & \quad [\text{DP } D[\text{PERSON}_x][\text{NP NOUN}]] & > & \quad [\text{AgrSP } [\text{AgrS}_x[\text{PAM}_y] ] [\text{AgrOP } [\text{AgrO}_t \text{PAM} ] ]]
\end{align*}
\]

IV. Model & modality. While numerous instances of grammaticalization in SLs follow directly from R&R’s model, the grammaticalization of PERSON has an additional modality-specific flavor. In both modalities, (pro)nominal elements can enter the verbal domain. However, while in spoken languages, agreement affixes typically enter the extended functional domain of V via cliticization, in DGS, PERSON ‘jumps’ directly from D into AgrO – most probably because it has the relevant spatial properties necessary to express agreement. SL grammaticalization, while being structurally similar (i.e. up the tree), thus allows for types of reanalysis that are not (yet) attested in spoken languages – an addition to R&R’s model that certainly deserves further study.

IV. References.


Gapping constructions have long been known to be ambiguous with respect to the scope of modal verbs and negation (Siegel 1984, 1987). Such elements can scope either over the coordinator, yielding *wide* scope, or under it, yielding *distributed* scope. What has not before been noted is that these elements cannot split their scope between wide and distributed scopes within a single example. These facts suggest that Gapping is a heterogeneous phenomenon, at least with respect to the size of the conjuncts involved. We propose that Gapping occurs in both large conjunct (CP) coordination and small conjunct (vP) coordination. Distributed scope surfaces in the large conjunct structures, and wide scope in the small conjunct structures. We conclude with a discussion of the conjunctive reading of *or*, an apparent counterexample to the split scope facts. Available when sentential negation is present, in both large and small conjunct structures, we argue that this reading cannot be exclusively the result of the negation taking scope over the disjunction. Instead, the conjunctive *or* can also appear as a variant of the negative disjunction *nor*, surfacing when the negation is elided.
Introduction. Different agreements paradigms involving person hierarchies and so-called split ergativity have been discussed in the literature to propose different approaches to their analysis. In this paper, I present new agreement data from Lak, which shows that the Lak person hierarchy is TAM sensitive. Furthermore, I propose an analysis that accounts for the distribution of the agreement suffixes without appealing to bi-clausality.

Intro to Lak. Lak is a Nakh-Dagestanian language, spoken in Russia. Lak is an absolutive language which marks identically subjects of intransitive and patients of transitive clauses, as in (1-2), with absolutive case being morphologically unmarked. Lak verbs bear two types of agreement markers: 1) noun class agreement (mostly prefixes) (3); 2) person agreement. The first type of agreement is found in all Nakh-Dagestanian languages, whereas the second type is attested only in a handful of these languages, being a recent innovation.

Lak person agreement. Unlike the majority of related languages, Lak has developed a complex system of person agreement. Interestingly, the person agreement differs from the class agreement in the former being able to agree either with an absolutive or ergative argument. Lak has a rich system of TAM combinations, but for reasons of space, I will discuss only synthetic verbal forms. There is an interesting agreement split in Lak: the verb always agrees in person with an absolutive argument in past tenses (4), but it can agree either with an ergative or absolutive argument in present tenses. The choice of an agreeing argument depends on two factors: 1) its place in the person hierarchy; 2) its syntactic position. The verb agrees with a non-3rd person argument if the other argument is 3rd person. If both arguments are local, the verb agrees with the highest argument (ergative) (5). Furthermore, if the present tense verb has an assertive marker, the agreement again follows the absolutive pattern, (6).

Proposal. The Lak agreement system can be explained as follows. First, I assume that Lak has several layers of light verbs (v) responsible for deriving numerous verbal forms. Second, the lowest v has [uCl], which gets valued by the closest argument (Absolutive). Third, I argue that the higher v has [uɸ], which gets valued again by the closest argument (ergative in transitive and absolutive in intransitive constructions). The person hierarchy results from the probe having an articulated structure (Bejár & Rezac 2009). In (5a), v tries to value its [uɸ] but since the ergative is 3rd person, it fails to value [participant], thus forcing the probe to look for another goal, which may value the remaining feature. I also assume that present tense forms lack TP, as opposed to the past tenses. The presence of T forces the ergative argument to move to SpecTP to satisfy the EPP, making it inaccessible for the relevant v, which then targets the absolutive. The evidence for a lack of TP in present tenses comes from the forms consisting of a participle and an agreement marker (El’darova 1999). Additional support comes from (6). The assertive mood (MoodP) can only be projected if there is TP: thus the ergative argument moves to SpecTP to satisfy EPP and cannot be targeted by v, which then resorts to the absolutive argument.

Bi-absolutive analysis. The agreement system in Lak bears a strong resemblance to so-called split ergativity (Coon & Preminger 2012). Despite some surface similarities with bi-absolutive constructions, which are often analyzed as bi-clausal constructions, there are some major differences. The distribution of bi-absolutive constructions and constructions with subject agreement is not the same with respect to TAM; moreover, bi-absolutes are optional (Kazenin
1999, Forker 2012). Furthermore, the ergative case marking is preserved in both types of person agreement in Lak (7).

**Data**

(1) Ninu d=awxun- di  
   Mother.II II=fall.AOR-3  
   ‘Mother fell.’  

(2) Niti-I buta  \(\emptyset=\)awtundi  
   Mother-ERG father.I.ABS  
   ‘Mother beat up father.’

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<th>Plural</th>
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(4) Žu ina \(\emptyset=\)awtundi-da  
   We you.I.SG.  
   i=beat.AOR-1/2SG  
   ‘We beat you up.’

(5) a. Na buta \(\emptyset=\)ataj-ra  
   I father.II.ABS  
   ii=beat.PRES.PRT-1/2SG  
   ‘I beat up father (regularly’

b. Na žu  
   b=ataj-ra  
   I we.ABS PL=beat.PRES.PRT-1/2SG  
   ‘I am beating you up.’

(6) Na ta d=ataj-sa:r  
   I she.II.ABS  
   ii=beat.PRES.PRT-ASS-3  
   ‘I am definitely beating her up’

(7) Niti-I  
   na \(\emptyset=\)ata-\(\emptyset\)ra  
   Mother-ERG  
   i=beat.PRES.PRT-1/2SG  
   ‘Mother is beating me up.’

**Selected References**


If there’s anything cleft ellipsis resembles, it’s (pseudo)gapping

Matthew Reeve (University College London)

It is often assumed that certain types of ellipsis involve non-pronunciation (‘PF-deletion’) of part of a full sentential syntactic structure (e.g., Fox 2000, Merchant 2001, van Craenenbroeck 2009). This analysis has been justified most extensively for sluicing (e.g., John knocked something over, but I don’t know what John knocked over) and VP-ellipsis (e.g., John knocked over the teapot, but Bill didn’t knock over the teapot), but has also been extended to gapping (e.g., John knocked over the teapot, and Bill knocked over the milk jug) (Coppock 2001). However, a number of authors have recently argued that gapping works in a fundamentally different way, involving one or more null heads whose presence in the structure is licensed syntactically (e.g., Williams 1997, Ackema & Szendrői 2002, Carrera Hernández 2007, Johnson 2009). In this talk, I will discuss a type of ellipsis in English and Russian cleft constructions (e.g., If there is anything that Bill is, it’s stupid that Bill is) which resembles gapping in certain respects and pseudogapping (e.g., John didn’t knock over the teapot, but he did knock over the milk jug) in others. I show that cleft ellipsis presents problems both for a PF-deletion analysis and for more syntactically-based analyses such as those cited above. Problematic for PF-deletion is that cleft ellipsis, like gapping, requires the ‘antecedent’ of the ellipsis to precede and be in the same sentence as the ellipsis itself, which is not true of more well-studied ellipsis phenomena such as sluicing (e.g., Lobeck 1995). Yet this is also problematic for syntactic approaches which attempt to reduce this and other properties of gapping to the fact that gapping may only occur in coordinate structures (with and), since cleft ellipsis need not (in fact, cannot) occur in coordinate structures, and in this respect is closer to pseudogapping. I propose an alternative analysis based on the idea that gapping and cleft ellipsis both involve a null-headed projection (0P) which must be syntactically licensed by an appropriate antecedent (Carrera Hernández 2007). Unlike Carrera Hernández, however, I propose that the null head plays an information-structural role: the phrase(s) with which this head is combined are interpreted as focused (the answer to some ‘question under discussion’), while the null head itself is interpreted as the ‘background’ of the focus (i.e., the question that the focus answers) (see Reich 2006 for a semantic analysis of this property of gapping). Thus, the structure for gapping will be as in (1a) and the structure for cleft ellipsis as in (1b):

1. a. [\&P [TP John knocked over the teapot] [\&´ and [0P Bill [0´ 0 the milk jug ]]]]
   b. [TP [CP If there’s anything that Bill is] [TP it [T´ ’s [0P 0 [AP stupid ]]]]]

The null projection in (1a) is licensed as in Carrera Hernández’s analysis: the TP c-commands 0P, and there is no intervening (in the sense of Relativized Minimality) verbal projection. In (1b), assuming that the segment/category distinction (May 1985) is relevant for c-command, the 0P is likewise locally c-commanded by the CP and can hence be licensed by it. The null head proposal can account for shared properties of gapping and cleft ellipsis such as the fact that they cannot occur in clauses which are embedded relative to the antecedent; this is because the null projection must be locally c-commanded by its antecedent (satisfying Relativized Minimality):

2. a. * John ate the salad, and I believe (that) Bill ate the beans.
   b. *If there is anything that Bill is, I believe (that) it’s stupid that Bill is.

---

Pseudogapping does not display the embedding restriction, which is why I do not assign it the otherwise tempting analysis in (1b); instead, I assume that it involves movement plus VP-ellipsis (e.g., Lasnik 1999).
On the other hand, the information-structural part of the proposal can account for properties such as the precedence requirement, since explicitly-marked focus-background structures generally require a preceding antecedent. Thus, focus-movement, which has been argued to facilitate a direct mapping to a focus-background structure (Neeleman & van de Koot 2008), may only occur if the ‘question under discussion’ precedes the clause containing focus-movement:

(3) a. I thought John ate the SALAD, but no, [the BEANS], he ate \( t_i \).

b. #[The BEANS], John ate \( t_i \), although I thought he ate the SALAD.

The non-embedding and precedence requirements are not shared by VP-ellipsis and sluicing. Under the present account, this is because they do not involve a null head which needs to be syntactically licensed and which imposes a focus-background structure. Rather, as in Merchant’s analysis, these types of ellipsis involve PF-deletion licensed by a weaker ‘e-givenness’ requirement on the deleted material.

References
Argument judgments and the nature of verbal semantic structure

Lilia Rissman, Johns Hopkins University

Kyle Rawlins, Johns Hopkins University Barbara Landau, Johns Hopkins University

Understanding whether the semantic verb-argument relationship is isomorphically equivalent to the syntactic verb-complement relationship is a central linguistic concern (see Pesetsky 1982, Pollard & Sag 1987, Jackendoff 2002). Recent evidence suggests that for instrumental participants (e.g. slice bread with a knife), semantic and syntactic argument diagnostics do not align: although the with-phrase is a syntactic adjunct, Koenig, Mauner & Bienvenue (2003) report the judgment that verbs such as slice semantically "require" an instrument. Such semantic argument judgments, i.e. the intuition that sneeze involves one participant but kill involves two, are ubiquitous in the verbal syntax/semantics literature. Nonetheless, such judgments have never been investigated in a controlled, experimental setting. We conducted such a study, eliciting judgments concerning instruments as well as recipients (e.g. lend money to the shopkeeper). Our results support the view that the instrument is a semantic argument for some verbs, indicating a dissociation between semantic argumenthood and syntactic complementhood. Intriguingly, our data also suggest that semantic arguments and non-arguments are not categorically distinguished in verbal representations.
On the non-existence of non-constituent coordination and non-constituent ellipsis
Craig Sailor, UCLA
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Keywords: ellipsis, coordination, constituency

Instances of non-constituent coordination (NCC) defy the widely-held belief that only constituents can be coordinated (Chomsky 1957):

(1) John [[spoke to Tom on Thursday] and Mary on Friday].

The second conjunct in (1) comprises only an object and a VP-adjunct, and excludes the other VP-internal material from the first conjunct (spoke to). Prior analyses argue that NCC involves regular constituent coordination plus non-constituent/“left-edge” ellipsis (LEE) (Wilder 1994; Hartmann 2000; Beavers & Sag 2004, Hofmeister 2010; Bruening 2012; cf. Pesetsky 1995):

(2) [John spoke to Tom on Thursday] and [John spoke to Mary on Friday]

However, this simply shifts the burden from coordination onto ellipsis: the latter becomes exceptional in operating on non-constituents (contra e.g. Merchant 2001).

Assuming all grammatical operations can only operate on constituents, we propose an alternative analysis of NCC that appeals to ellipsis, but not LEE. We argue that (1) involves coordination of full clauses, but the second conjunct is reduced by clausal ellipsis following (A’)-movement of focused constituents to a position outside the deletion site:

(3) …and [CP [Mary], [on Friday], [[I spoke to]]

Thus, we argue that NCC belongs to the natural class of “move-and-delete” phenomena, on par with pseudogapping (Lasnik 1999), fragment answers (Merchant 2004), etc. In support, we show that NCC exhibits hallmark characteristics of both movement and ellipsis, facts which cannot be easily accommodated under an LEE-type approach.

Evidence for movement. (A) P-stranding sensitivity: the omission of to in (1) is only possible in P-stranding languages (English, Norwegian), not in non-P-stranding languages (Italian (below), Russian, Slovene, Irish, Scottish Gaelic, Greek):

(4) H parlato a Maria (e Stefano) martedì e *(a) Tommaso giovedì.

Sensitivity to P-stranding diagnoses movement (Merchant 2001,2004). LEE does not predict this P-stranding effect, as it would not distinguish omission vs. inclusion of P in (4). (Such data cannot be due to a PF-adjacency condition between P and DP: DPs can be coordinatend underneath P).

(B) Island sensitivity: Although constituents originating inside non-island NPs/CPs can compose the second conjunct of NCC (5), they cannot originate within island NPs/CPs (6) (see Griffiths & Liptak 2012 on non-repair of islands in contrastive ellipsis).

(6) a. I painted pictures of my dog for Mary and of my cat for John.
   b. John told us he knew Icelandic on Thursday and Faroese on Friday. (matrix attachment of PP)

(5) a. *I criticized John’s brother for arriving early and sister for staying late.
   b. *I met someone who knows Icelandic at work and Faroese at a party. (matrix attachment of PP)
c. *I heard the claim that John is a fool from Mary and a genius from Tom. Additional parallels exist between the constraints on movement and constraints on NCC (e.g. anti-locality), none of which follow from an LEE approach. 

**Evidence for clausal ellipsis:** (A) missing pieces: the second conjunct in NCC involves ellipsis of a clausal remnant following the movement described above. This captures examples in which material that would normally intervene between the focused XPs is left out in NCC (CAPS=focus):

(7) a. I told John I was learning Icelandic and Mary Faroese
    b. I gave books to Tom on Thursday and records on Friday

Such examples do not involve “left-edge” ellipsis by definition, nor do the surviving XPs in the second conjuncts of (7) form continuous strings in their unreduced counterparts. Adopting “intermittent ellipsis” for such cases is undesirable, as we argue.

(B) clausal vs. nominal domain: NCC is impossible within nominals:

(8) *I heard the rumor about Mary that she liked and (about) Tom that he hated

This follows from (3): NCC is only possible in clausal configurations, since it requires movement to focus-related A’-positions (Spec,CP) and ellipsis licensing by a licensor which is available across languages (ie. C, the licensor for sluicing, fragments).

**Conclusion:** Unlike the LEE approach, our analysis correctly predicts that the interpretation of NCC is subject to the licensing and identity requirements on ellipsis (Merchant 2001). This is in keeping with a growing literature aiming to reduce the proliferation of apparent deletion operations to a just a single operation whose empirical profile can vary under the influence of other grammatical processes, e.g. movement. Our analysis dispenses with unrestrictive rules like LEE and prosodic deletion (Hartmann 2000), thus removing NCC from the realm of the exotic and putting it on par with widely adopted analyses for pseudogapping, fragment answers, etc., as well as perhaps gapping, which we discuss by way of a conclusion.  

[Word count: 750]

**References**


A Feature-driven movement analysis of English participle preposing

Keywords: syntax, inversion, word order, information structure

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I present a novel syntactic analysis of participle preposing, one of the least-studied English inversions identified as a root phenomenon in the framework of [1]. My attempt to address this lack of theoretical investigation begins with a novel empirical investigation of a corpus of newspaper articles [2]. I use these data to motivate a minimalist, feature-driven vP-movement analysis that makes reference to the relative discourse familiarity of the preposed participle.

In participle preposing, the logical subject (what would be the subject in the canonical word order) appears to the right of be, while what would ordinarily be the participial complement of passive or progressive be appears to its left:

(1) Adding to the dynamic is a dramatically slowing economy […].

Participle preposing displays the properties of root phenomena [3]: It is possible in highest matrix clauses, coordinated main clauses, and for-adverbials, but not in root or embedded questions, adjuncts, sentential subjects, or most verbal complements. Like Mainland Scandinavian V2 [4,5], it occurs in only a limited subset of embedded clauses introduced by bridge verbs:

(2) Phil said [that adding to the dynamic would be a dramatically slowing economy].

Like other English inversions [7,8], preposed participles participate in raising constructions (3), suggesting that the participle A-moves to [Spec,T].

(3) Adding to the dynamic happened to be a dramatically slowing economy.

There are, however, discourse restrictions: The information in the preposed participle must be at least as discourse-familiar as the information in the logical subject (in (4), the previously unmentioned Chamber) [9]:

(4) Organized labor will spend as much as $75 million in this election […]. Countering the push by big labor is the Chamber of Commerce.

(5) The Chamber of Commerce will spend as much as $75 million in this election […]. Countering the push by big labor is the Chamber of Commerce.

This strongly suggests that the syntax of participle preposing is mediated by information-structural requirements. I propose that the preposed phrase is a vP that bears a TOP(IC) feature. This feature must be licensed by a head in the functional structure by the usual mechanisms involving syntactic positions sensitive to information structure [10,11].

Topic-driven movement accounts for the behavior and distribution of participle preposing. I assume be takes a small-clause complement whose head (Pred) bears an EPP feature that attracts the most prominent argument of the vP. (The [Spec,Pred] position allows passive participles to be preposed without their logical subjects.) When T bears a TOP feature, it must attract an Agreeing TOP-marked phrase to its specifier. If the vP moves to [Spec,T], T agrees with the logical subject:
To capture the discourse restrictions on participle preposing, it is necessary to constrain vP-movement to contexts where the vP bears a top feature; further, it is necessary to tie the licensing of a top-marked phrase to the clause’s assertoric nature. I propose that top is an uninterpretable feature that T inherits from C [12], accounting for the fact that participle preposing shares the core properties of Germanic V2 while its availability in raising constructions (5) implies an interaction between T and the preposed participle.

Because only Cs that head root/assertive clauses may pass this uninterpretable feature on to T, participle preposing is impossible in non-finite (ECM) clauses with no C. The participle must eventually move to the C layer because preposing is incompatible with A′-movement: Preposing is not possible in questions, nor can anything be A′-moved out of a clause containing preposing:

(6) *Was countering the push by organized labor the Chamber of Commerce?

(7) *The Chamber of Commerce, Phil thought that countering the push by organized labor was.

The analysis presented here is an improvement over previous analyses because (a) the vP movement straightforwardly accounts for obligatory movement of vP-adjuncts along with the preposed participle; (b) phases and only phases move (assuming with [13] that vPs are phases); and (c) it ties the syntactic properties of the construction to its discourse conditions. Another welcome consequence is an account of the possibility of preposing in passivized ECM constructions but not their active counterparts.

More broadly, it suggests that discourse restrictions on the felicitous use of a construction can—and in fact must, as the logical subject cannot appear in [Spec,T] when preposing occurs—be encoded in the syntax. That is, there is an interaction between the construction’s syntactic distribution and its information-structural function.

Word count: 743

References

A Tale of 2(nd position) Clitics  
Bridget Samuels, University of Southern California

To paraphrase Chomsky & Halle (1968:9; SPE), whether the output of the syntactic component and the input of the phonological component are the same is an empirical issue. With the advent of cyclic Spell-Out systems such as Chomsky (2001, 2008), work towards understanding how prosodic phenomena can leverage Spell-Out domains has provided insightful explanations of suprasegmental and segmental phrasal phonology in a wide variety of languages (Marvin 2002, Ishihara 2007, Kratzer & Selkirk 2007, Newell 2008, Kahnemuyipour 2009, Samuels 2011, inter alia). This growing body of work suggests that complete isomorphism between syntactic constituents and phonological ones may be achievable.

In this talk, I discuss an issue that has so far remained under the radar in these new analyses of prosodic domains: whether the placement of second position (2P) clitics require reference to I-phrases that are non-isomorphic to syntactic constituents. I take a “minimal pair” of closely-related languages—Serbo-Croatian (SC) and Slovenian (Sl)—as my case study. These languages exhibit very similar 2P clitic behavior, yet 2P in SC has been described as the position after the first phonological phrase/word in an I-phrase (Bošković 2001), whereas 2P in Sl has been described as the position after the first syntactic phrase in a CP (Golden & Sheppard 2000).

In both SC (1) and Sl (2), clitics (which include present-tense forms of the auxiliary verb biti as well as pronouns and, in SC, the interrogative marker li) are permitted to follow the first XP in their domain.

(1) Jovan je voleo Mariju (SC)  
   Jovan.NOM AUX.3SG love.MASC Marija.ACC  
   ‘Jovan loved Marija’

(2) Jan je ljubil Marijo (Sl)  
   Jan.NOM AUX.3SG love.MASC.PTCP Marija.ACC  
   ‘Jan loved Marija’

In SC, there is no possibility of 2P clitics arising in initial position. However, in Sl, clitics may appear initially in both interrogative and declarative contexts (Golden & Sheppard 2000: 196). That is to say, Sl permits both enclisis and proclisis.

(3) a. Ga še nisi srečal? (Sl)  
    3.MASC.ACC yet NEG.AUX.2SG met  
    ‘Have you met him yet?’
   b. Nisi ga še srečal?

(4) a. Sem ga že oddal. (Sl)  
    AUX.1SG 3.MASC.ACC already mailed  
    ‘I have already mailed it.’
   b. Oddal sem ga že.

The generalization prima facie about clitic placement in Sl seems to be that 2P clitics come after the first syntactic constituent in a CP. Yet for SC, Bošković (2001) has argued that 2P clitics are actually placed relative to an I-phrase boundary, not a CP boundary. Golden & Sheppard (2000:205) propose a set of three parameters to account for the differences between SC and Sl:
I argue that the domain parameter is unnecessary and further that the parameter schema is insufficient. For example, it does not help in accounting for the difference between SC and SI with respect to the status of (6) and (7): a clitic cannot split a syntactic constituent in SI (6-b) but the SC counterpart (7-b) is acceptable provided there is focus on veliko ‘big’ (Marušič To appear:1):

(6) a. Veliko hišo je kupila
   big house AUX:3SG buy:FEM:PTCP
   ‘She bought a big house.’

b. *Veliko je hišo kupila
(7) a. Veliko kuču je kupila
   big house AUX:3SG buy:FEM:PTCP
   ‘She bought a big house.’

b. Veliko je kuču kupila

I argue that when one takes the syntactic differences between SC and SI into account, I-phrases look isomorphic with syntactic constituents and the motivation for the CP vs. I-phrase parameter disappears. Despite their close genetic relationship, I show that SC and SI are syntactically different in ways that affect their clitic placement. I provide an account in which the difference between SC and SI reduces to (a) what types of movement they allow in the syntax, which directly impacts the elements that appear in the same Spell-Out domains, and (b) whether a clitic that finds itself first in its Spell-Out domain can proclitize or not. This account supports a view of the PF interface in which there is no readjustment component to the construction of prosodic constituents; instead, such domains can be mapped directly from syntax without restructuring at PF.

Optional Wh-Movement and Clefts
Anisa Schardl, University of Massachusetts Amherst

In many languages including Dholuo, Kikuyu, and Malay, there are several ways to ask a wh-question: the wh-item may appear in situ, fronted to the scope position of the question, or in a left peripheral position of an embedded clause (Fanselow, 2006).

(1) a. Onyango owacho ni Pamba ogweo ng’a?
   Onyango said that Pamba kick who
b. ng’a ma Onyango owacho ni Pamba ogweo?
   who Onyango said that Pamba kick

c. Pamba owacho ni ng’a ma Onyango ogweo?
   Pamba said that who Onyango kicked ‘Who did Pamba say Onyango kicked?’

Much of the prior research on Malay has analyzed Malay as a wh in situ language with wh-movement word orders analyzed as pseudoclefts. I show that while a pseudocleft analysis may work for Malay, it is a poor analysis for Dholuo and Kikuyu. Then, I propose an analysis for Dholuo and Kikuyu questions.

A pseudocleft wh-question contains a wh-item and a relative clause, and possibly an overt copula (Jensen, 2011). In Dholuo, an overt copula is possible in questions with movement.

(2) a. ng’a ma nyo ok omiel?
   who PST NEG danced
   ‘Who didn’t dance yesterday?’

b. en ng’a ma nyo ok omiel?
   COP who PST NEG danced
   ‘Who was it that didn’t dance yesterday?’

The consultant reported that the two questions in (2) bring about different meanings. (2-b) is only good if you have a single person in mind who didn’t dance. For example, you heard that someone got injured and could not dance, but you didn’t hear who. (2-a) does not have this meaning. (2-a) is possible if you don’t know how many people did and did not dance. It could be the case that everyone danced. This indicates that pseudoclefts in Dholuo have the same existence and uniqueness conditions as in English. The fact that these meanings only come out when the copula is spoken indicates that questions with an overt copula are pseudoclefts, while questions without an overt copula are not.

Clefting in multiple wh-questions is either universally ungrammatical or extremely rare. For Dholuo speakers who accept multiple wh-questions, it is possible to move one of the wh-items. Schwarz (2003) uses the same reasoning to argue that movement of wh-items in Kikuyu is not clefting. He also argues that wh-movement structures in Kikuyu are monoclusal because wh-movement can coexist with left dislocation and topicalization, which are clause-bound in Kikuyu.

Most of the prior research in Malay analyzes partially and fully moved wh-items as pseudoclefts. This is based largely on the differences between moved wh-items and wh-items left in situ. For example, moved wh-items are impossible if the base position of the wh-item is within an island, although wh in situ is fine in this context (Saddy, 1991). In Dholuo and Kikuyu, on the other hand, there are no differences in island effects between moved wh-items and wh-items in situ. Further,
there are often restrictions on which wh-items can be clefted (Cole and Hermon, 2000; Potsdam, 2006; Jensen, 2011), which do not hold in Dholuo.

My analysis of wh-movement word orders for Dholuo and Kikuyu are based on the syntax and semantics of wh-questions in Cable (2010). In this system, the wh-item is an element that only has a Focus-semantic value and no regular semantic value. The head Q can be interpreted anywhere in the question and is responsible for turning the Focus-semantic meaning of its sister into a regular-semantic meaning. Q then moves to the scope position of the question, a syntactic universal.

In Cable (2010), there are languages in which Q must merge with the wh-phrase in order to Agree with it and projects a QP, and then the whole QP is moved (wh-fronting languages) and languages in which Q can be merged anywhere in the sentence, Agrees with nothing, and moves by itself to the front (wh in situ.) I propose that Dholuo and Kikuyu are languages in which Q can be merged anywhere, but must still Agree with the wh-phrase. This means that if Q is merged too far from the wh-phrase’s in situ position, the wh-phrase must move to the nearest phase edge in order to Agree with Q. Then, Q moves to the front of the question. The different positions of the wh-items are determined by the different possible positions of Q and the locations of phase boundaries. This predicts that in Dholuo and Kikuyu, we see island effects over the whole length of the question, either triggered by movement of the wh-item or movement of Q, which is borne out.

References


Towards a general alignment parameter hierarchy
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Following the format in [1], this paper presents an attempt to characterize the parameter hierarchy governing case/agreement alignment. It has long been known that there is no single ‘ergativity parameter’ regulating alignment in transitive clauses ([2], [3]). While split-ergativity (whereby a language is accusative in some contexts and ergative in others at the clausal level) may not exist (cf. [4]), various different alignments are fairly uncontroversially attested: morphological ergativity ([5]), split-S and fluid-S systems ([3]: 73-8, [6], [7]), syntactic ergativity ([3], [8]), which can be subdivided into High ABS and Low ABS ([9], [10], [11], [12]). The alignment hierarchy in (1) provides a new perspective on these patterns, building on the insight that ERG is a theta-related case/Case ([13]):

(1) Basic alignment parameter: Does transitive ‘v’ assign theta-related ERG to its specifier in L?
   Accusative
   Y
   (Russian...)
   Split-S parameter: Do all ‘v’s in L assign ERG?
   Y
   N
   Morphologically Split-S
   (Chol, Basque)
   Syntactic ergativity parameter:
   Does v_{ERG} bear an EPP feature in L?
   N
   Y
   Morphologically ergative
   (Walpiri)
   High/low ABS parameter:
   Does v_{ERG} assign structural Case in L?
   Y
   N
   Low ABS
   (West Greenlandic, Tagalog)
   High ABS
   (Dyirbal, Q’anjob’al)

In these terms, whether theta-related ERG functions as a quirky case (Walpiri, West Greenlandic, Tagalog) or as an inherent Case (Dyirbal, Q’anjob’al) depends on whether some other DP blocks Agree between T and the DP subject.

(2) [TP...T [vP DP_{ERG} v [VP V DP_{OBJ}]]] T can agree with DP_{ERG} = quirky ERG
(3) [TP...T [vP DP_{OBJ} [vP DP_{ERG} v [VP V DP_{OBJ}]]]] T cannot agree with DP_{ERG} = inherent ERG

In high ABS languages, DP_{OBJ} agrees with T, so ABS/NOM Case is suppressed where T is deficient, yielding the famous Dyirbal control pattern ([3]). In Low ABS languages ABS is dependent on v not T, but movement of DP_{OBJ} still blocks extraction of DP_{ERG}. Both of these subtypes therefore display basic syntactic ergativity (ban on A-bar extraction of ERG-marked DPs): where v bears EPP, the presence of DP_{OBJ} in the phase edge traps DP_{ERG} inside vP (cf. [10], [11]).

We argue that (1) is descriptively necessary, highly explanatory and conceptually grounded. Not only does it provide a coherent minimal description of attested alignments, it also explains certain important gaps and one-way implications, notably the nonexistence of languages which ERG-mark only unergative subjects. (1) also explains another much discussed alignment asymmetry: the fact that apparently no language has ergative agreement and accusative case alignment, though the reverse is possible ([14], [15]). This follows because, according to (1), ERG can be quirky whereas accusative case morphology cannot.

We further argue that the same kind of parameter hierarchy should be extended to cover alignment in v-VP (cf. [16], [17], [18], [19]):
(4) **Basic morphological ergativity parameter:** Does transitive ‘V’ assign theta-related DAT to its specifier in L?

```
N Y
Secundative  Split-S parameter: Do all ‘V’s in L assign DAT?
(Yoruba) Y N
```

(5) **Syntactic ergativity parameter:** Does V bear an EPP feature in L?

```
N Y
Morphologically indirective (Japanese) Indirective (French)
```

Assuming, following [20], that goals are base generated above themes, the ‘ergative’ pattern inside VP is one where goals receive a theta-related case (DAT), and themes get structural ACC by agreeing with v:

(5) \[ \text{[vp ... v [vp DP_{ACC} [vp DP_{DAT} [v' V DP_{ACC}]]]} \]

Once again, we propose that the theme must raise past the goal in such instances to be accessible to the probe v. As VP is not a phase, however, this does not affect A-bar extraction possibilities. As such, DAT can be quirky (Japanese) or inherent (French), depending on the presence/absence of this EPP feature, as reflected in passivization patterns: Japanese, unlike French allows passivization of DAT DPs.

The ‘accusative’ pattern is instantiated in secundative languages in which the goal gets structural ACC (Yoruba):

(6) a. ó pa mí [Yoruba, secundative, [21] citing [22]]
   he kill me

b. ó fun mi I’ ówó
   he give me SEC money

As [18]’s 100 language survey shows, there are languages with indirective case marking and secundative agreement, but not vice versa. Again, this is explained by (4), because DAT on a goal can be quirky, whereas ACC cannot. As such a language with indirective case marking can be underlyingly secundative, whereas the reverse is impossible.

Crucially, both alignment hierarchies consistent of very basic parameters with the same basic structure: Is X present? Is X always present? Is X associated with EPP? etc. I argue that the ordering of parameters in both cases is not specified by UG but is rather emergent, being forced either by acquisition pressures or system internal logic. For example, if the Split-S parameter were lower down in the hierarchy, the possibility of syntactically ergative split-S languages would arise. In such languages, unergative \texttt{VERG} would bear an EPP feature which could never be satisfied, leading to a doomed derivation.

**References**


Syntactic Treatment of the Relative Reading with NP Internal Focus in Superlatives

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This study proposes that cross-linguistic differences in the availability of certain relative readings of superlatives stem from different syntactic structures of NPs, specifically the presence vs. absence of D. Following a movement approach of superlatives, I show that the structural difference together with standard locality conditions correctly derives the distribution of relative readings in English-type languages and Slavic-type languages.

**Observation:** Pancheva and Tomaszewicz 2012 (P&T) observe that superlatives in (1) allow three interpretations in Bulgarian, but only two in English (Table 1).

(1) a. John has the best albums by U2. (English)
   b. Ivan ima naj dobri albumi ot U2. (Bulgarian)
      Ivan has EST good albums by U2.
      “Ivan has the best albums by U2.”

**Table 1**

<table>
<thead>
<tr>
<th>Absolute Reading</th>
<th>English (1a)</th>
<th>Bulgarian (1b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(The U2 albums that John has are better than other U2 albums.)</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative Reading with NP External Focus (REX)</th>
<th>English (1a)</th>
<th>Bulgarian (1b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“John has better U2 albums than others.” (Focus: “John”)</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relative Reading with NP Internal Focus (RIN)</th>
<th>English (1a)</th>
<th>Bulgarian (1b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“The albums by U2 that John has are better than the albums by others that John has.” (Focus: “by U2”)</td>
<td>*</td>
<td>√</td>
</tr>
</tbody>
</table>

P&T account for the difference by postulating that the definiteness of the Determiner head blocks movement of the superlative morpheme est/naj out of the nominal phrase. This is surprising since the superlative DPs with relative readings pattern with the indefinite NPs (Szabolcsi 1986).

**Proposal:** This cross-linguistic difference regarding the availability of R_{IN} is derived not from the definiteness but different NP structures, namely the presence (English) vs. absence (Slavic) of a DP projection (Bošković 2008).

I adopt the following assumptions: i) Dynamic approach to phasehood (Wurmbrand 2011)—the highest projection of a domain is a phase: NP is a phase in Bulgarian, while DP is a phase in English; ii) Phase Impenetrability Condition: Moving out of a phase must occur via the edge of the phase: a phase-adjoined position or the specifier of the phase; iii) DP allows at most one specifier; iv) the superlative morpheme originates in Spec.,DegP, which in turn is the specifier of AP (Bošković & Gajewski t.a.).

The account of (1) is as follows. For the absolute reading, est/naj is interpreted in-situ in both languages, (2).

(2) LF: a. John has [DP-PHASE the [AP [DegP est] [A good [NP albums by U2]]]]. (English)
   b. Ivan has [NP-PHASE [AP [DegP naj] good] [NP albums by U2]]. (Bulgarian)

For R_{EX}, est/naj must move to a position below the focused element (John/Ivan). In Bulgarian (3b), naj originates at the edge of the NP phase (AP is NP-adjoined) and can hence move in one step. In English (3a), AP is not at the phase edge, so est must first move to Spec,DP (cf. ii.).

(3) a. John [est] has [DP-PHASE t the [AP [DegP t] [A good [NP albums by U2]]]]. (English)
   b. Ivan [naj] has [NP-PHASE [AP [DegP t] good] [NP albums by U2]]. (Bulgarian)
For R\textsubscript{IN}, both the focus (by U2) and est must move out of the DP. Assumptions ii) and iii) prohibit this in English: movements must pass through the phase edge Spec,DP, which can only host one element, hence (4a) is impossible. In contrast, in Bulgarian, the focused PP and the AP are both generated at the edge of the NP phase, thus movement in (4b) is allowed.

(4) a. *[by U2]; [est]; John has [DP-\text{PHASE} \text{t1}] the [AP[DegP \text{t1}] [A good [NP [NP albums] \text{t2}]]]. (English)
   b. [by U2]; [naj]; Ivan has [NP-\text{PHASE} [AP[DegP \text{t1}] good] [NP [NP albums] \text{t2}]]]. (Bulgarian)

Further evidence can be found in constructions in Slavic where the NP internal focus is not adjoined to NP but a complement of N. Complements of phase heads are immobile (Abels 2003). Thus a reading that requires the movement of a complement of a phase head is not possible. In (5), the R\textsubscript{IN} is indeed unavailable, like in English. The contrast between (4b) and (5b) follows from the syntactic account provided here but would be unexpected under P&T’s account.

(5) a. Ivan je sreo naj vise studente lingvistike. (Serbo-Croatin)
   “Ivan met the tallest students of Linguistics.”
   b. *[Linguistics]; [naj]; Ivan met [NP-\text{PHASE} [AP[DegP \text{t1}] tall] [NP [NP students \text{t2}]]
   “The Linguistics students that Ivan met are taller than other students Ivan met.”

word count: 749

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‘Get’-passives and case alternations: the view from Icelandic

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Jim Wood • Yale University

Keywords: passives, light verbs, applicatives, case-marking

**Introduction** The analysis of ‘get’-passives across Germanic poses a number of challenges to our understanding of valency alternations: they exhibit surprising case alternations and recalcitrant thematic properties (Alexiadou et al. 2010; Alexiadou 2012). In this talk, we present novel data on ‘get’-passives in Icelandic, which have not, to our knowledge, been studied in this language before. Our proposal combines insights from work proposing certain light verbs are syntactically complex (Freeze 1992; Kayne 1993) and work proposing arguments are introduced by special functional heads (Pylkkänen 2008).

**Data** Dative objects retain dative case under canonical passivization in Icelandic. Dative indirect objects, however, seem to change from dative to nominative in ‘get’-passives, where fá ‘get’ occurs with an inflected passive participle. (Icelandic data comes from first author.) Analogous facts can be found in other Germanic languages.

(1) a. Máriu var send bókin. b. María fékk bókina senda.
   Mary.DAT was sent book.the.NOM Mary.NOM got book.the.ACC sent

**Analysis** In the spirit of Taraldsen (2010), we propose that Icelandic fá involves an Appl head responsible for its thematic properties. However, unlike Taraldsen, we propose that this is a high Appl, taking the passive participle as its complement. Appl takes no specifier of its own, but forms a complex predicate with the event-introducing v head and the external-argument-introducing Voice head (Pylkkänen 2008). The surface subject is introduced by Voice.

(2) [VoiceP Mary Appl/v/ Voice(=“fá”) [vP Appl/v Appl [PassiveP the book sent ]]]

**(1b)**

**Initial supporting evidence** When a ditransitive taking two dative objects is used, the second object remains dative. This supports the proposal that the surface object is merged as a thematic argument of the passive verb.

(3) a. Þeir úthlutuðu mér þessu. b. Ég fékk þessu úthlutað.
   they allocated me.DAT this.DAT I.NOM got this.DAT allocated
   ‘They allocated this to me.’ ‘I got this allocated to me.’

That the subject of such ‘get’-passives is a syntactic external argument is supported by the fact that it may be removed by "middle" -st morphology which normally prevents merger of an external argument (Sigurðsson 2012).

(4) Þessu fékk-st ekki úthlutað.
   this.DAT got-ST not allocated
   ‘This didn’t get allocated.’

**Further support** The alternative to the present analysis would say that the surface subject in (1b) moves from the position of the dative indirect object in (1a), with the result that the dative becomes nominative and the accusative stays accusative (Alexiadou et al. 2010; Taraldsen 2010). However, there are at least three more reasons, beyond case marking, to think that the surface subject is not moved from within the passive.
verb phrase. First, ditransitives with obligatory indirect objects do not form ‘get’-passives without projecting the indirect object within PassiveP.

\[(5) \text{ a. Deir eignuðu *(mér) kvæðið. b. Ég fékk kvæðið eignað *(öðru skáldi).} \]

they attributed *(me.DAT) poem.the.ACC I.NOM got poem.the attributed *(another poet.DAT)

If (1b) involved A-movement from the indirect object position, (5b) should be possible without the dative. Potential exceptions to this generalization in other languages will be discussed in the talk. Second, certain ditransitives allow either the direct or indirect object to move to subject in the passive (Zaenen et al. 1985:460). In ‘get’-passives, however, only the recipient may move to the subject position. Among A-movement analyses, this is expected only on Taraldsen’s (2010) analysis, which depends on a ‘peeling’ analysis of case morphology (Caha 2009); the latter, however, faces independent difficulties with Icelandic case-marking patterns. Third, there are ‘get’-passives which have no plausible transitive counterpart as a source for the surface subject (e.g. 5b with the dative), but have the same syntax as (1b).

On Appl The interpretation of the complex predicate in (2) depends on the combination of Appl, v, and Voice. The data presented so far is consistent with the view that fá is an ECM verb that may take a passive VP complement. The reason to invoke Appl, in the sense of Pylkkänen (2008), is that the range of interpretations of the surface subject is varied and very close (perhaps identical) to the those available to high applicatives cross-linguistically. High Appl may introduce dative beneficiaries/maleficiaries, affectees and (unintentional) causers, and such datives are often strongly implied to be possessors as well. All of these properties are shared by the surface subjects of ‘get’. Moreover, high Appl in Germanic is often not possible on intransitive unergatives (Tungseth 2007:198), a property also shared by ‘get’-passives, which are not generally acceptable with unergative (‘impersonal’) passives.

748 words

MORPHOSYNTACTIC FEATURE ECONOMY IN THE SLAVIC DUAL

Keywords: Slavic, dual number, markedness, economy.

Dual number marked on personal pronouns disappeared in the majority of Slavic languages except for the three - Slovenian, Upper, and Lower Sorbian. Previous studies (Iordanskij 1960, Derganc 1988, Žolobov 1998, Nevins 2011) do not provide a principled account (i) why the dual was replaced by the plural in the majority of Slavic including Russian and Kashubian; (ii) why it was ‘renewed’ as a bi-morphemic dual in Slovenian, Upper, and Lower Sorbian. In the framework of Distributed Morphology (Harley & Noyer 1999), I propose a new principle of Morphosyntactic Feature Economy (MFE) which applied to a marked [-singular -augmented] feature combination of the Slavic dual to eliminate its markedness. Morphosyntactic markedness of the dual was resolved in two different ways. In Russian and Kashubian, a marked [-augmented] feature was deleted via impoverishment, which resulted in the syncretism of the dual with the plural. In Slovenian and Sorbian, a marked [-singular -augmented] feature combination was split via fission into two separate nodes – [-singular] and [-augmented] realized by two morphemes in a bi-morphemic dual. This difference in strategy resulted in the preservation of the dual in Slovenian and Sorbian, but in its subsequent reanalysis as plural and disappearance in Russian and Kashubian.

Two patterns of diachronic change occurred in the Slavic dual (1). In Old Russian and Kashubian, the dual was lost, i.e. reanalyzed as plural due to dual/plural syncretism. In Old Slovenian and Sorbian, the dual was reanalyzed as bi-morphemic consisting of a plural stem and the numeral dva (‘two’) or the dual suffix -j.

(1) The Loss of the Dual in Russian & Kashubian and Its Preservation in Slovenian, Upper, & Lower Sorbian

<table>
<thead>
<tr>
<th></th>
<th>Old Russian</th>
<th>Russian</th>
<th>Old Kashubian</th>
<th>Kashubian</th>
<th>Old Slovenian</th>
<th>Slovenian</th>
<th>Old Sorbian</th>
<th>Upper Sorbian</th>
<th>Lower Sorbian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dual</td>
<td>vě, vy</td>
<td>-</td>
<td>ma, va</td>
<td>-</td>
<td>my, vy</td>
<td>mi-dva,</td>
<td>my, wy</td>
<td>mó-j,</td>
<td>me-j,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>vi-dva</td>
<td></td>
<td>wó-j</td>
<td>we-j</td>
</tr>
<tr>
<td>Plural</td>
<td>my, vy</td>
<td>my, vy</td>
<td>me, ve</td>
<td>mě, wa</td>
<td>my, vy</td>
<td>mi, vi</td>
<td>my, wy</td>
<td>my, wy</td>
<td></td>
</tr>
</tbody>
</table>

The principle of MFE, which I proposed, states that a marked feature combination [-singular -augmented] of the dual cannot be realized at Phonological Form without eliminating markedness of its features at Morphological Structure. In Old Russian and Kashubian, the MFE applied via impoverishment which deleted the [-augmented] feature in the context of a marked [-singular] feature (2). After impoverishment, the dual and plural became syncretic and were encoded by a shared [-singular] feature. A singular/plural pronominal system in Old Russian and Kashubian became a singular/plural system in contemporary Russian and Kashubian since only a [+singular] feature was needed.

(2) Impoverishment Rule for Old Russian & Kashubian

[-augmented] → Ø/ Num⁰[-singular]

In Old Slovenian and Sorbian, the MFE applied via fission which split a marked [-singular -augmented] feature combination of the dual into two separate terminal nodes – [-singular] and [-augmented] (3). The result of fission was a less marked and more economical morphosyntactic representation of the dual with two separate positions of exponence. Two Vocabulary Items (VIs) were needed to realize these positions. The [-singular] feature was filled by the plural pronoun. The [-augmented] feature was filled by the numeral dva (‘two’) or the dual suffix -j as a minimal non-singular semantic unit (4).

(3) Fission Rule for Old Slovenian & Sorbian

[-singular -augmented] → [-singular] [-augmented]

(4) VIs for Slovenian & Sorbian

/mi & vi/ or /my & wy/ ↔ [-singular]
/dva/ or /-j/ ↔ [-augmented]
I have argued that the principle of MFE is a driving force behind the two different patterns of diachronic change in the Slavic dual. This principle predicts that dual pronouns should not be monomorphemic cross-linguistically. This prediction is borne out in Manam (Austronesian), Hebrew (Afro-Asiatic), and Hopi (Uto-Aztecan).

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Learning and the Position of Primary Stress

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The placement of primary stress is not completely independent of the placement of secondary stress. Instead, primary stress tends to fall on the “first” foot placed in the parse of a word. I present an explanation for this tendency based on learnability: such systems are more quickly learned and are thus more common cross-linguistically.

I give an online model of stress learning using Maximum Entropy grammar (Goldwater and Johnson 2003) and a gradual learning algorithm (Boersma & Pater 2008). I compare patterns obeying and disobeying the generalization and find that the former are more easily learned in simulations.

Accounts such as van der Hulst’s (1984), in which main stress is always placed first, rule out languages in which primary stress occurs on the word edge opposite the start of iteration. A small number (8%) of languages in StressTyp (Goedemans & van der Hulst 2005) do behave this way however — some of which do not permit an analysis in which main stress placement precedes secondary stress. The correlation between primary stress and footing order is a numerical tendency, not a total restriction. No account can be successful if based on absolute requirements imposed by the grammar.

I propose that this tendency should be understood as an interaction of learning and grammatical assumptions. If in some language primary stress falls on the first foot placed, that language is easier to learn because primary and secondary stress data are mutually-reinforcing. A datum about primary stress contributes to some hypothesis about secondary stress, while a secondary stress datum does similar for primary. When the placement of primary stress correlates with the direction of secondary stress, both types of data promote the same hypotheses. In effect, learners of languages with the correlation get more certainty out of the same amount of data. Therefore, such languages can be learned faster.

In simulations, a gradual learner for Maximum Entropy grammar is given some number of iterations in which to learn a stress pattern. After this point, its remaining sum squared error is recorded. I compare learning results for patterns obeying the generalization (primary stress at the start of footing) with patterns identical in secondary stress but reversing the generalization (primary stress on the last foot). I find a bias (error higher when the generalization is reversed — a negative difference) in several constraint sets, notably n-gram constraints and those like Alber’s (2005) set of alignment and rhythmic constraints. Thus with these constraint sets learnability appears to have a valuable link to typological frequency.

For simulations with Alber’s constraints, the mean difference over 100 trials for iterative systems in Heinz's (2007) typology after 10,000 iterations is -0.349, (range: -2.079 to 1.058). The only positive (opposite edge-prefering) patterns are those with primary stress clash — disfavored on other grounds. For bidirectional systems the mean is 2.372 (2.311 to 2.433), reflecting their tendency for primary stress to fall on the opposite edge from iteration.

Such a difference in learning establishes a bias in favor of the “easier” languages. This motivates looking at typology as partially emergent from relative learnability (see e.g. Prince 1993, and Moreton 2008). The link between learning and typological frequency is explored by e.g. Moreton and Pater (To appear). In this view, easily-learned languages are readily innovated and maintained and thus become more common. This kind of bias does not produce categorical results; instead, it creates biases for certain types of languages over others. Languages violating the primary stress generalization could still occur — just less frequently. This account therefore explains not only why a bias should exist, but also why it should permit exceptions.
This account depends crucially on assumptions about the representation and constraints. Depending on the constraint set used, the set of languages that are easily learned can shift. For example, Gordon’s (2002) system for quantity-insensitive stress — using grid-based constraints with an end rule — lacks the needed bias. Assumptions about constraints and representations are just as important for probabilistic generalizations as for categorical ones. Such predictions provide an additional method for evaluating grammatical proposals: one may consider not just whether a proposal predicts the (non)existence of a particular pattern, but also whether it predicts the overall frequency of that pattern (cf. Niyogi and Berwick 1995).

This learning-based account of primary stress placement provides an explanation for the origin of a tendency with exceptions: learning promotes tendency-agreeing patterns but does not ban disagreeing ones. It is explicitly modeled using independently-motivated formalisms and provides a novel basis for assessing those formalisms.

References


Against a unified analysis of Givenness and Focus
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Overview
Previous work\textsuperscript{2,9,10} has proposed to unify the information-structural notions of Focus\textsuperscript{3,5,6} and Givenness\textsuperscript{7} in English. We present data that show these proposals to be untenable. Instead, we argue for the existence of Givenness as a syntactic feature independent from a (pragmatically constrained) phonological notion of Focus\textsuperscript{5}. Contra recent proposals, Givenness-based de-accenting (de-accenting = lack of prosodic prominence on an element which would otherwise have it)\textsuperscript{4} is syntactically constrained in a way that Focus is not—mere Givenness cannot shift accent onto an adjunct. This is explained by the projection behavior of a formal G(ivenness)-feature. If the G-feature projects onto adjuncts as other formal features do, there is an “all or nothing” effect where it is impossible for Givenness to de-accent only the lower segment of an adjunction structure. Focus is claimed not to be a formal feature, accounting for the lack of similar syntactic restrictions on its distribution.

Problems w/ unified account
De-accenting is typically taken to be a reflex either of Givenness or lack of Focus, or both. Wagner\textsuperscript{9,10} posits a unified analysis where Givenness-marking applies only when there is a contrastive (i.e. mutually exclusive) antecedent in discourse to the element that receives prominence. Example (1) below is evidence for this; “cheap” has a mutually exclusive antecedent “high-end” (i.e. ‘cheap’(x) entails the negation of ‘high-end’(x)), and “convertible” is salient in the context, thus accent can shift from “convertible” to “cheap”. But shifting from “convertible” to a non-contrastive adjective “blue” is infelicitous. In order to account for examples like (2), Wagner gives the caveat that direct objects must move to a propositional node at LF. In (2) the LF is claimed to be partitioned into [\lambda x. ‘I don’t read x′] + [‘german’], so the contrast is not between ‘read’ and some other verb, but rather between [\lambda x. ‘I don’t read x′] and any other predicate that is true of German. There are three problems with this: 1) no specific predicate of a de-accented DO need be mentioned or implied in discourse, as in (3), 2) contra W’s claim, de-accenting within DPs with no propositional node is acceptable in contexts with no explicitly contrastive (i.e. mutually exclusive) antecedent, as in (4), and 3) apparent Givenness-marking does not obey island constraints, as we see in (5). Finally, W’s account does not properly account for examples like (6), where the antecedent is entailed by the accent-shifted sentence, and thus mutual exclusivity is impossible.

New analysis
We still need an explanation of W’s important observation that some instances of de-accenting require contrast as in (1). We show that the generalization is syntactic. A contrastive antecedent is required only when accent is shifting onto an adjunct. Compare (4) and (7) for a minimal pair. We demonstrate this behavior for both adjectives and adverbs. This is expected if Givenness is a formal syntactic feature. A G-feature on “city” should project onto its adjunct “violent”. This would de-accent the whole NP and introduce the unwanted presupposition that the whole NP’s denotation is salient in the context. Thus, VIOLENT city cannot be derived via G-marking. We argue that the G-feature is the only information-structural notion encoded in narrow syntax, where Focus is an interface phenomenon à la Roberts\textsuperscript{5}. Focus is comparatively unconstrained in its distribution; it can even apply to parts of words\textsuperscript{1}, where Givenness shows no analogous behavior. Similar conceptions of information structure\textsuperscript{6} give Focus and Givenness equal status in grammar, and thus do not account for these differences in behavior.
Data

(1) Mary’s uncle buys and sells high-end convertibles for a living. He’s coming to her wedding. I wonder what he got her as a present.
   A: He got her a CHEAP convertible
   He got her a blue CONVERTIBLE / #He got her a BLUE convertible

(2) She gave me a German book, but [I don’t READ German]

(3) (Out of the blue, upon noticing that you are reading a biography of Tolstoy:)
   My great-grandfather was FRIENDS with Tolstoy

(4) My mother asked if we were moving to the city.
   I told her that the VIOLENCE in the city is a TURN-off

(5) a) *[dp Which store] did you buy a necklace from tdp and a belt from Macy’s?
   b) Oh you went to Sak’s? Just yesterday I bought a NECKLACE from Sak’s and a BELT from MACY’s

(6) When I got to the reception, Uncle Bill was dancing. Soon, EVERYBODY was dancing

(7) My mother asked if we were moving to the city.
   #I told her that the VIOLENT city is NO place to BE

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On De Re Predicates
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Keywords: De re/de dicto, Intensionality, Generalization X

Synopsis: [1] postulates a constraint on predicates in intensional contexts that bans them from receiving a de re interpretation (his ‘Generalization X’). I argue that [1]’s empirical evidence is not sound, and one can in fact construct examples with de re predicates (cf. [2,3]). I further claim that such examples can be used to defeat certain theories of de re/de dicto ambiguity. Adopting the idea that de re readings make reference to higher-order relations ([2-7]), I propose to encode de re/de dicto ambiguity completely in semantics, whereby significantly simplifying the syntax. Especially, res movement postulated by [2,3] and covert concept generators of [7] are dispensed with. It also eliminates massive type proliferation, and intensional variables in the object language.

Observations: Suppose that Mary, an ignorant atheist, cannot distinguish different branches of Christianity. We learned that our religious friend, John, recently got married to a girl named Sue. Because of his religious orientation, Mary concluded that Sue must belong to the same denomination as him, but she has no idea which. I know that John is Catholic. In this context, I can truthfully utter (1).

(1) Mary believes that Sue is Catholic (because John is).

The predicate is Catholic here is clearly de re. This is a counterexample to Percus’ constraint. Furthermore, it is possible to construct a sentence where the whole embedded clause is interpreted de re. In the above situation, assume further that Sue is my ex-girlfriend, which Mary does not know. In this situation, (2) can be used to mean the same thing as (1).

(2) Mary believes that my ex-girlfriend is Catholic.

In a similar vein, we can construct a counterexample to [6-7]’s constraint demanding intersec-tively interpreted predicates to agree in de re/de dicto (‘Intersective Predicate Generalization’). Furthermore, de re interpretations of quantifiers and other types of expressions can be constructed. Examples of these cases are omitted here to save space.

Previous Theories: One prevalent theory of de re/de dicto ambiguity postulates phonologically null intensional variables in the object language, which may be bound by intensional operators like believe ([1,8-11]). Under this theory, de re readings are captured simply as involving variables not bound by such operators. However, this approach cannot adequately capture the meaning of (2), as Percus himself remarks. That is, if believe does not bind any variable, the resulting truth conditions will involve vacuous quantification, and be only contingent on the actual state of affairs, rather than what Mary believes. Specifically, (2) is wrongly predicted to be true just in case my actual ex-girlfriend is actually Catholic. Another type of theory contends that de re is a pure scope phenomenon ([8,12,13]), but this would run into the same problem. Also, a third type of theory, advocated by [4,5] crucially relies on the presupposition of the de re phrase, and predicts that non-presuppositional expressions like is Catholic cannot be de re, contrary to fact.

Proposal: Following [2], I propose that de re readings involve reference to a relational compo-nent (also [3-7]). A novel feature of my analysis is that such a relation is directly built into the semantic system, allowing syntax to be simple.

More specifically, an expression α is interpreted relative to a contextually salient function ζ such that for all w in the context set C, ζ(w)([α]) = 1, where [α] is the intension of α, and its extension relative to w′, is tP[ζ(w′)(P) = 1](w′). For instance, in the case of (1), ζ = λw.λP. P=[λw′.λx. x belongs in w′ to the denomination that John does in w]. I assume that the de
"dicto" reading is always licensed, i.e. $\zeta = \lambda w. \lambda P.[P = P]$ is always salient. Thus, unlike in the standard possible world semantics, the extension relative to $w$ is not always equivalent to $[\alpha](w)$, but mediated by a contextually salient function $\zeta$.

A desirable feature of this analysis is that it captures the fact that de re readings require contextual support, as the value of $\zeta$ needs to be accommodated ([3-5]).

Another advantage is that the proposed analysis dispenses with syntactic complications. It can be formulated without covert intensional variables in the object language. Since they cause overgeneration problems, they should be eliminated. This suggests that natural language does not allow full quantification in the intensional domain (contra [8,14]). Also, neither covert movement of de re phrases, which considerably complicates the syntax-semantics mapping in [2,3]'s theories, nor a phonologically covert operator like [7]'s concept generator is necessary.

Word count: 747

References:


In usage-based models of phonology, words emerge from traces of phonetic memory. Different words should thus undergo regular phonetic change at different rates, as “any systematic bias on theallophonic outcome would incrementally impact high-frequency words at a greater rate” (Pierrehumbert 2002: 118; see also Bybee 2002). Labov (1994) suggests that homophone pairs form an ideal testing ground for distinguishing fine-grained contextual phonetic conditioning from frequency effects. Drager (2011) shows that in New Zealand English, the different roles (verb, quotative, etc.) of the word LIKE, essentially a homophone set, differ systematically in their phonetic realizations (/k/-release and ratio of /l/ to vowel); she attributes the differences partly to item frequency. These roles might also, then, be susceptible to divergence in sound change. Conveniently, LIKE participates in a recent change in Philadelphia, the raising of /au/ before voiceless consonants (Labov 2001), allowing us to leverage the same comparison as Drager within the context of a change in progress. We show that /au/-raising advances at the same rate in the different roles of LIKE, counter to the predictions of simple usage-based models. We suggest that hybrid phonological models allowing for an abstract level of representation are necessary to reconcile our results on sound change with Drager’s findings on synchronic variation.

Our data come from a roughly age/sex-balanced sample of 37 white speakers from thePhiladelphia Neighborhood Corpus (Labov & Rosenfelder 2011). Following D’Arcy (2005), each occurrence of LIKE was coded for its role:1 lexical verb, preposition, conjunction, adverb, or discourse marker (quotatives are not used until late in the change). Tokens counts and frequencies for the roles are given in Table 1. Vowel height (F1) and duration were measured using the automatic formant extraction program FAVE-extract (Rosenfelder et al. 2011). F1 values were Lobanov-normalized and duration was log-transformed.

We fit linear mixed-effects regression models with speaker random effects to predict /au/ height from birth year, vowel duration, and LIKE role. There is a significant effect of LIKE role, but the only significantly different role is verbal LIKE. Verbal LIKE is also longest in duration and the only content word. The other four roles, although they occur in the corpus at widely disparate rates, have the same degree of /au/-raising throughout the change (Figure 1). Speakers born before 1920 have a significantly lower /au/ in lexical verb LIKE than in other roles, but this difference is lost by speakers born after 1970. We argue that verbal LIKE, because it can occur in stressed position, most faithfully reflects thephonological target of the vowel /au/ throughout the change; a surface process of function word reduction (here, vowel centralization) makes non-verbal LIKE appear more advanced early in the change. High frequency LIKE roles such as the discourse marker, then, have two advantages in /au/-raising: they are both highly frequent and unstressed. Rather than these concomitant advantages in use accruing, with non-verbal LIKE accelerating beyond verbal LIKE, the difference is instead attenuated as the nucleus of /au/ approaches a central target and there is no longer room for centralization.

Thus we contend that in Philadelphia the roles of LIKE undergo /au/-raising as a unit. The highly-frequent discourse marker LIKE changes at the same rate as the comparatively-rare conjunction LIKE. Drager’s (2011) results show that the roles of LIKE can be phonetically differentiated, which she interprets as requiring direct links between socio-syntactic representation in the lexicon and phonetic detail perceived and produced in language use. If these roles are available for phonetic differentiation, they should be susceptible to usage-based differentiation in the rate at which they undergo a sound change in progress. To the contrary, despite large differences in usage, they do not diverge throughout the course of the change. Our results thus indicate a need for phonological theories that can account for the failure of frequency effects to arise, but pure exemplar theoretic models do not offer such a constraining mechanism. Hybrid models with both a usage-dependent level and an abstract categorical level (e.g., Pierrehumbert 2006) are needed to account for the full range of facts.

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1 We remain agnostic as to the nature of the formal relationship between these roles, other than to note that they have different meanings and syntactic functions.
Table 1. Token count and within-sample frequency per million words

<table>
<thead>
<tr>
<th></th>
<th>Token count</th>
<th>Sample frequency</th>
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<tr>
<td>Adverb</td>
<td>138</td>
<td>664</td>
</tr>
<tr>
<td>Conjunction</td>
<td>129</td>
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<tr>
<td>Discourse</td>
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<td>274</td>
<td>1319</td>
</tr>
<tr>
<td>Verb</td>
<td>213</td>
<td>1025</td>
</tr>
</tbody>
</table>

Figure 1. /a/ height by LIKE role over time

References


On two kinds of negative concord items in Korean
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Introduction: Many researchers assume that negation-sensitive elements like amwu-N-to are negative polarity items (Sells & Kim, 2006; Kim, 1999; Lee, 1995). They are unlike NPIs in other languages however, in that they appear to exhibit wide scope with respect to their licensers. We argue that such elements fall very much in line with negative concord items (NCIs) in languages such as Serbo-Croatian (SC), and examine two such items in particular.

Background: Bošković (2009) proposes two types of NCIs. I-NCIs in SC contain a wh-part and a focal even-marker; ni-NCIs in addition contain a negative n- part. I-NCIs are compatible with long-distance negation but not clausemate negation, and cannot form negative fragment answers; ni-NCIs in contrast require clausemate negation and can form fragment answers. Bošković proposes that ni-NCIs bear an interpretable neg feature [iNeg], making them semantically negative. Negation in SC can bear either [uNeg] or [iNeg]. Under Bošković’s analysis, (n)i-NCIs involve obligatory focus movement to Spec,FocP. With an embedded negation, the NCI must move through Spec,NegP on its way to Spec,FocP for locality reasons, and is subsequently spelled out as ni-NCI, the n- a reflex of Spec-Head agreement with negation. Thus ni-NCIs appear to require clausemate negation; with long-distance negation, the i-NCI can move directly to the embedded Spec,FocP. As for the derivation of fragment answers, what is elided must include a Neg head with [uNeg], checked by an NCI with [iNeg]. Once this agreement relation ensues however, only ni-NCIs can surface; thus only ni-NCIs serve as fragment answers. Finally, although Bošković does not discuss lexically negative predicates, we observe that negative verbs are compatible with i-NCIs but not ni-NCIs.

(1) nemoguće je da (*n-)iko može to da postigne
impossible is that (n)i-NCI can.3.sg it.acc that achieve.3.sg.pres
‘It is impossible for anyone to achieve that’

Korean data: 1 Etten-N-to but not amwu-N-to can be used in a wh-phrase(2). 2 Amwu-N-to but not etten-N-to can form fragment answers(3). 3 Amwu-N-to but not etten-N-to can be modified by keuy ‘almost’ (Lee, 1996/2001; Kim, 1999; Sells & Kim, 2006)(4). 4 Negation in lexically negative predicates is restricted to the predicate but “licenses” amwu-N-to (Hwang, 2008). Replace amwu with etten however and the sentence becomes degraded(5). 5 Both amwu-N-to and etten-N-to require clausemate negation.

(2) John-i {etten/*amwu}-chayk-ul ilk-ess-ni?
John-NOM ETTE/AMWU-book-ACC read-PAST-Q?
‘Which book did John read?’

(3) Q: mwues-ul po-ass-ni?
what-ACC see-ASP-Q
‘What did you see?’
A: {amwu/*etten}-kes-to
AMWU/ETTEN-thing-TO
‘Nothing’
Proposal: Amwu-N-to and etten-N-to are both consistent with Bošković’s system. Parallel with SC, we suggest amwu-N-to bears an [iNeg] feature; likewise Korean negation projects a NegP with either [uNeg] or [iNeg]. Unlike SC however, lexically negative predicates in Korean project a NegP with [uNeg]. Furthermore, unlike SC NCIs, both NCIs in Korean can move to Spec,NegP. Let us now see how the proposal captures the data.

1 Wh-phrases: An NCI with [iNeg] is semantically negative and thus cannot be used as a wh-indefinite. I-NCIs in SC and etten-N-to pattern together, while ni-NCIs and amwu-N-to pattern together.
2 Fragment answers: Etten-N-to cannot form a fragment answer because what is elided must contain a negative head with [uNeg]; given that etten-N-to does not bear [iNeg], the [uNeg] of negation would remain unchecked. 3 Almost-modification: We assume that amwu-N-to with its [iNeg] feature is semantically a negative quantifier; etten-N-to on the other hand is an existential (wh-)indefinite. The universal amwu-N-to can thus be modified by almost. Note that this is consistent with the wide scope facts of amwu-N-to. 4 Lexical negation: Since lexical negation in Korean projects a NegP with [uNeg], only amwu-N-to can co-occur with it. This is the opposite of what we find in SC, where we suggest lexical negation does not project a NegP, and thus can only co-occur with i-NCIs. 5 Clausemate negation: Our approach predicts only amwu-N-to should require clausemate negation; however both do. We rule out etten-N-to in long-distance contexts independently however by appealing to a presupposition clash involving the focus particle to (An, 2007).

(4) John-un keuy {amwu/*etten}-kes-to mek-ci anh-ass-ta
   John-TOP almost AMWU/ETTEN-thing-TO eat-CI NEG-PAST-DECL
   ‘John ate almost nothing’

(5) John-un {amwu/?*etten}-kes-to molu-n-ta
   John-TOP AMWU/ETTEN-thing-TO not.know-PRES-DECL
   ‘John doesn’t know anything’

   Bill-TOP John-NOM ETTEN/AMWU-thing-TO buy-PAST-DECL-COMP say-CI NEG-PAST-DECL
   ‘Bill didn’t say that John bought anything’

Conclusion: Negation-sensitive elements in Korean are better analyzed as normal NCIs consistent with other cross-linguistic instantiations, rather than as peculiar NPIs.

References
Closest conjunct agreement (CCA) has recently been brought to bear on whether agreement is syntactic ([8, 6]) or post-syntactic ([5]). This paper addresses this question by shifting attention from how the grammar accesses the features of closest conjuncts, to the contexts where CCA is and isn’t possible. Many languages allow first conjunct agreement (FCA) when an argument follows the agreement controller, but only resolved agreement reflecting the properties of the whole conjunction, when the argument has moved across it ([15, 3]). Furthermore, in many languages CCA is limited to certain arguments or certain agreement controllers ([14, 15, 4]).

Starting from analyses of CCA where AGREE ([8]) identifies multiple equidistant goals that PF chooses from ([15, 4]), I argue that post-syntactic processes only affect agreement when neither the needs of the goal nor the needs of the probe force a choice between the equidistant goals. A probe’s EPP and a goal’s need for case rule out some equidistant goals, restricting where CCA is possible. Though PF may affect agreement, when and how it does so is controlled by the syntax.

**Controlling Agreement in Syntax and PF.** [15] develops an analysis of alternations between FCA and resolved agreement in Dutch and Bavarian complementizer agreement, e.g. (1), based on (i) an asymmetric structure of conjunction, where the the maximal projection &P and the first conjunct are equidistant ([7]) to a c-commanding probe, Fig. 1, and (ii) the observation that whether FCA or resolved agreement surfaces in these languages depends on which one leads to a more specific agreement morpheme on the complementizer. Optionality arises when both are equally specific, (1). AGREE here identifies two possible goals, but valuation picks from them at PF based on PF-specific criteria.

(1) [. . . daß{-st/ -ts} ] [duSG und’Maria]2PL an Hauptpreis gwunna habds that{-2SG/-2PL} you.SG and the Maria the first prize won have.2PL

‘. . . that Maria and you have won the first prize’ ([15]:134)

A property of this example is that the subject does not require C-agreement to be licensed, and that C has no needs from the AGREE relation beyond valuation. Restrictions on CCA arise because the needs of the probe (EPP) and those of the goal (case) rule out some of the equidistant goals. Post-syntactic effects arise only when such additional requirements are absent.

**Movement bleeds FCA.** Complementizers in Bavarian (B: [15]) show CCA or resolved agreement when the subject follows C, (1), but only resolved agreement when the subject moves across it, (2). The same goes for verbal agreement in Standard Arabic (A: [2, 1]), (3) agree 1 vs agree 2, and English (E), (4a) vs (4b).

(2) [DuSG und’Maria]2PL glaub’e daß{-*sd/ -ds} an Hauptpreis gwunna habds you.SG and the Maria that{-2SG/-2PL} the first prize won have.2PL

‘You and Mari I think that have won the first prize’ ([15]:152)

(3) kæn-at [?uxt-i: wa ?antum]ConjP ta-tarakkid-uxna was.3SG.FE sister.FE-my and you.PL.MA 2-race around-PL.MA

‘My sister and you.PL were racing around.’

(4) a. There remains one package and two letters in the bag

b. Which man and which woman {*has/ have} there arrived?

When the same head agrees with and moves an argument, movement imposes additional restrictions on AGREE (compare [6]). While the first conjunct and &P are equidistant goals, the coordinate structure constraint makes only &P a possible target of movement, Fig. 2. When movement excludes the first conjunct as a goal of AGREE, valuation by &P is the only option at PF.
**Case and CCA.** The availability of CCA is also controlled by the need for case. If a case assigner AGREED with the first conjunct, non-initial conjuncts would fail to receive case. Only AGREED with &P and case spreading to all conjuncts leads to a convergent derivation, Fig. 3. CCA becomes an option whenever something else fulfills the need for case. In Irish, for example, non-initial conjuncts receive default accusative case ([13]). Without the need for case spreading, T can agree with and assign case to only the first conjunct. Another possibility is that the probe that assigns case is different from the one that controls agreement (also [4]). This happens in expletive constructions in E. [10, 11] argues that the subject in (4a) receives case independent of T-agreement. When T neither assigns case to nor moves the subject, FCA becomes an option. Elsewhere in E, T’s EPP and case block CCA. The more widely available FCA in A arises similarly. A has multiple layers of functional structure that agree with the subject, see the two agreeing verbs in (3). The lower ones of these go unpronounced when there is only one verb. It is this lower functional structure that assigns nominative, as shown in multiple-verb+multiple-nominative-constructions ([9]), where the verb in T does not agree with the thematic subject, and in participial constructions where the higher functional structure appears to be missing, but nominative is still licensed. T-agreement can be CCA in A, because something other than T assigns case. CCA in Slovenian [12] and Serbo-Croatian [6] may also fit this pattern. Number agreement in both languages is always resolved, while gender can be CCA. If the number probe is responsible for licensing case, the gender probe is free to enter CCA.

Wh-in-situ and QR in Mandarin Generic Sentences

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Key words: wh-movement, Quantifier Raising (QR), generic, bare noun phrases

The literature on in-situ wh-phrases generally focuses on whether there is covert wh-movement. For Mandarin Chinese (henceforth MC), for example, Huang (1982) proposes that all in-situ wh-phrases undergo LF movement, Tsai (1994) argues that only non-nominal wh-phrases move and nominal wh-phrases are unselectively bound by a Q-operator in CP, and Soh (2005) argues that wh-adverbials undergo LF feature movement, whereas wh-nominals undergo covert phrasal movement.

This work tries to contribute to the debate by pointing out a hitherto neglected phenomenon with the wh-in-situ in MC. Tsai (1994) observes that some wh-adverbs appear to be unaffected by syntactic islands, for instance, (1), where zenmeyang ‘how’ occurs in a relative clause. He attributes the grammaticality of such sentences to the implicit ‘nominal’ nature of the wh-phrase zenmeyang being used here, i.e. thematically denoting an instrument. Note however that in (1) zenmeyang occurs in a generic sentence; the subject NP denotes a specific kind of men and is generic. If it occurs in an episodic context, such as the sentence in (2), ungrammaticality arises, as would be expected with in-situ wh-adverbs. This generic/episodic contrast cannot be accounted for by earlier proposals on in-situ wh-phrases.

Here we propose that the in-situ wh-adverb zenmeyang in sentences like (1) is interpreted via Quantifier Raising (QR). Specifically, we argue that generic NPs in MC have inherent quantificational force and undergo QR (cf. Diesing 1992), and the in-situ zenmeyang in (1) is pied-piped along with the QR of the generic subject NP. To show that generic bare NPs in MC are quantificational, at least two pieces of evidence can be provided. First, it is known that in English bare plural NPs are non-quantificational (Carlson 1977); in the sentence (3), the embedded subject professors can only assume the narrow scope relative to the intensional verb believes. In MC, however, a bare NP in the same context may assume the wide scope, as shown in (4). This indicates that bare NPs in MC may exhibit universal force and raise to a position higher than the intensional verb, on a par with the every-NP in English in (5). Second, it has been shown that the two internal arguments of a double-complement verb may enter into scope interaction. For instance, the every-PP in (6) may assume a wider scope than the indefinite ‘a book’. In such an example the quantificational locative phrase undergoes QR to vP and scopes over the object (May 1977, Breuning 2001, etc.). Similarly, the MC example in (7) also permits the reading such that the locative bare NP zhuozi ‘table’ outscopes the object yixie hua ‘some flowers’.

Now we propose the following analysis to account for the contrast between (1) and (2). In (1), the bare NP which contains the wh-adverb zenmeyang is generic and undergoes QR. Since it is both [+quantificational] and [+wh], we assume that it moves to Spec of CP, where the bare NP gets a scope and the wh-phrase zenmeyang receives an interpretation. Thus QR doesn’t necessarily target TP; CP is also a potential target. In (2), the bare NP is existentially closed due to the episodic context where it occurs (Diesing 1992). Thus it doesn’t move, and consequently zenmeyang fails to be interpreted, resulting in ungrammaticality.
To conclude, we propose that QR is one of the means by which an in-situ wh-phrase reaches an A’-position for interpretation. It is yet to be seen how the proposed QR approach could apply to phenomena of wh-in-situ in other languages.

(1) [Zenmeyang tiaowu] de nanren] bijiao miren?
how dance LINK man more attractive
‘What is the manner x such that men who dance in x are more attractive?’

(2) *Zuotian [zenmeyang tiaowu de nanren] qin-le Yilin?
yesterday how dance LINK man kiss-PERF Yilin
Intended: ‘What is the manner x such that men who danced in x yesterday kissed Yilin?’

(3) Jill believes (that) professors are insane.
   a. believe > professors
   b. *professors > believe

(4) Zhangsan xiangxin jiaoshou hen congming.
Zhangsan believe professor very smart
   a. xiangxin ‘believe’ > jiaoshou ‘professor’
   b. jiaoshou ‘professor’ > xiangxin ‘believe’

(5) Jill believes (that) every professor is insane.
   a. believes > every professor
   b. every professor > believe

(6) John put a book on every desk.
   (every desk > a book)

(7) Zhangsan fang-le yixie hua zai zhuozi-shang.
Zhangsan put-PERF some flower at table-on
   ‘Zhangsan put some flowers on [all] tables.’
   (zhuozi ‘table’ > yixie hua ‘some flowers’)

References
**Sharing Light Verbs between Passive and Active Transitive Verbs**

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key words: Japanese, light verb, possessor passive

**Goal:** It has been commonly assumed that a transitive root merges with a light verb (called small v), which makes available to the root: (i) accusative Case and (ii) external argument (A ex) position ([9]). Passives are distinguished from actives by the absence of v ([3]) or presence of some functional head without (i) or (ii) ([2]/[4]/[5]/[6]). The latter approach might lead to undesirable proliferation of light verbs. If the participle ending (represented as -EN) is nominal ([1]/[8]), English-type passives can be analyzed as involving v just as actives; -EN is a bearer of Case and external argument, apparently nullifying (i)/(ii). This analysis can be extended to Japanese passives; rare is verbal but an empty pronominal pro is available instead of -EN. One objection is that the subject of actives is always ‘logical,’ being directly 0-related to verbs. I will show that transitives with non-thematic subjects (Tr-NS) exist, pursuing a ‘uniform’ approach to Tr-NSs and three major types of passives in Japanese.

**Data:** In (1a/2a), the subject is agentive, undertaking the action expressed by the verb, while it need not in (1b/2b); someone/something other than the subject undertakes the action ([13]/[12]).

1a. John-ga Mary-no komaku-o yabu(k)-i-ta.  
   b. John-ga komaku-o yabu(k)-i-ta  
   NOM   GEN eardrum-ACC rupture-TR-PAST\(\)   NOM eardrum-ACC rupture-TR-PAST
   ‘John ruptured Mary’s eardrum.’
   ‘John had his eardrum ruptured.’

2a. Isha-ga kanzya-no keccho-o tekishutu-si-ta.  
   doctor-NOM patient-GEN colon-ACC removal-DO-PAST
   b. Kanzya-ga keccho-o tekishutu-si-ta.  
   patient-NOM colon-ACC removal-DO-PAST
   ‘The doctor removed the patient’s colon.’
   ‘The patient had his colon removed.’

I take (1b)/(2b) as attesting the existence of Tr-NSs.

One condition on Tr-NSs is that the subject needs to be ‘included’ in the event expressed by the verb, typically being the possessor of the object. As for Tr-NSs with native Japanese verbs like (1b), roots are restricted to transitivity alternation verbs; (1b) and (4a) are thematically close to (3) and (4b) (cf., [11]/[12]).

   GEN eardrum-NOM rupture-INTR-PAST

4. a. John-ga ie-o ya(k)-i-ta.  
   b. John-no ie-ga yak-e-ta  
   NOM house-ACC burn-TR -PAST   GEN house-NOM burn-INTR-PAST
   ‘John had his house burnt down.’
   ‘John’s house burnt down.’

The subject of pure transitives like hum is agentive irrespective of the presence of the possessor.

5. John-ga (Mary-no) as-i-o hum-da.  
   NOM   GEN foot-ACC step-on-PAST
   ‘John stepped on Mary’s/his own foot.’

Curiously, Sino-Japanese verbal nouns in Tr-NSs like (2b) lack intransitive counterparts: *Kanzya-no keccho-ga tekishutu-si-ta.

Tr-NSs resemble possessor passives like (6b); direct and indirect passives are exemplified in (6a,c) ([10]/[13]/[4]/[5]/[6]/[7]/[14]).

6. a. John-no komaku-ga (Mary-ni/ni yotte) yabuk-(r)are-ta.  
   GEN eardrum-NOM by rupture-PASSIVE-PAST ‘John’s eardrum was ruptured (by Mary).’
b. John-ga (Mary-ni/ni yotte) komaku-o yabuk-(r)are-ta.
   NOM by hair-ACC cut-PASSIVE-PAST ‘John had his eardrum ruptured (by Mary).’

   c. John-ga Mary-ni/ni yotte Tom-no komaku-o yabuk-(r)are-ta.
   NOM DAT/by GEN eardrum-ACC rupture-PASSIVE-PAST
   ‘John had Tom’s eardrum ruptured by Mary.’

**Proposal:** (6c) and (1a) indicate that rare and v provide (i) accusative Case and (ii) Aext position in conjunction with the transitive root √YABUK; additionally, rare intrinsically can check dative Case ni on Aext in vP-spec.

(7) [vP Mary-ni [v’ [vP [DP Tom-no komaku]-o √YABUK]-rare]] =>(6c)

(8) [vP John [v’ [vP [DP Mary-no komaku]-o √YABUK]-v]] =>(1a)

John in (8) moves to TP-spec as a thematic subject, while TP-spec in (7) is filled with an extra DP non-0-related the root.

Suppose English-type passives involve morphological merger of -EN with v analogously with -er in nouns like player. After merging with an internal argument (Ains), the root √X merges with and head-moves onto v-EN. Since -EN is part of and closer to √X-v than Ains -EN exploits accusative, while functioning as Aext.

Given pro, Japanese direct/possessor passives are analyzed analogously. The amalgam of rare with transitive roots can check accusative and dative. In (9), pro ‘absorbs’ accusative and dethematizes vP-spec position, allowing DP to move into vP. In (10), pro absorbs dative and dethematizes vP-spec; accusative is available for one nominal. If the head of DP bears it, the non-head John moves to vP-spec.

(9) [vP John-no komaku [v’ [vP [DP (John-no komaku)] √YABUK]-[ rare-pro(ACC)]]] =>(6a)

(10) [vP John [v’ [vP [DP (John) komaku-o] √YABUK]-[ rare-pro(DAT)]]] =>(6b)

Mary-ni in (6a,b), being optional and interchangeable with Mary-ni yotte, is not dative.

Tr-NSs are possible if the root allows vP-spec to be thematically empty; the root √YABUK in (1b) could alternatively be realized as unaccusative yabuke, and tekishutu in (2b) and verbal nouns in general can ‘passivize’ without morphological change (cf., Rome’s destruction). In (11), the head of DP is Case-checked, and nothing prevents the non-head from moving through vP-spec into TP-spec, which is exactly as in (6b)/(10).

(11) [vP John [v’ [vP [DP (John) komaku-o] √YABUK]-v]] =>(1b)

A Unified Account of Nonnative Cluster Repairs
Keywords: cluster, loanword, perception

Suyeon Yun (MIT)

In loan adaptation, when a cluster of a source language is phonotactically illegal in the borrowing language, vowel epenthesis and consonant deletion are the most and next frequent repairs respectively (Kang 2011). Sites of epenthesis differ depending on the cluster (Fleischhacker 2001, Gouskova 2003, Yun 2012 among others), as do the sites of consonant deletion (Shinohara 2006, Kang 2011). I conducted an expansive survey of loanwords from 52 languages showing either epenthesis or deletion in clusters both word-initially and word-finally, and propose novel generalizations about nonnative cluster repairs. First, when the edge consonant is a stop, a vowel is most likely to be epenthesized after the stop. If not, the edge stop deletes (e.g., *gdansk* (Polish) Æ [gdaënsk] (English; Yun 2012), *compact* Æ [kʰəmpekʰtʰ] (Korean; Yun 2012), *blanket* Æ [lenketti] (Finnish; Karttunen 1977), *compact* Æ [kompak] (Indonesian; Yun 2012)). One exception is consonant deletion in initial stop-liquid clusters; some languages delete the initial stop (e.g., *gramatika* (Russian) Æ [ra:mattu] (Finnish; Karttunen 1977)), but others delete the liquid (e.g., *plastic* Æ [pattik] (Thai; Gandour 1979)). Second, when the edge consonant is a sonorant, a vowel is epenthized before the sonorant. (e.g., *bovskij* (Russian) Æ [vlbovskij] (Kirghiz; Gouskova 2003), *rubl* (Russian) Æ [rubult] (Kirghiz; Yun 2012)). No deletion of a word-edge sonorant occurs (except in nasal-nasal); even in a language where deletion can be a repair strategy, word-edge sonorants undergo epenthesis rather than deletion (e.g., *Swaziland* Æ [susaila] vs. *Seattle* Æ [siiaatul] (Inuktitut; Pollard 2008)). Repairs for clusters including edge fricatives show complex patterns (cf. Fleischhacker 2005), which is incorporated into the full analysis but not discussed here for simplicity.

My hypothesis is that the typology results from perceptual similarity between a cluster and its repaired form. First, a cluster with an edge stop is perceptually most similar to the epenthesized form after a word-edge stop and then to the form omitting the edge stop. This is based on the fact that epenthesis after a stop helps the release cue of the stop well realized maintaining the cluster consonants, and when deletion must occur, deleting the edge stop yields more similar outputs since if we lose the non-edge consonant adjacent to a vowel, we lose its transitions on the vowel as well as the consonant itself. In initial stop-liquid clusters, the cluster and the form deleting either consonant will be similar since a post-stop liquid also bears release and transition cues of the preceding stop (Flemming 2007). Next, I hypothesize that a cluster involving an edge sonorant is perceptually most similar to the epenthesized form before the sonorant, but is quite distinct from the form deleting the sonorant. This is because sonorants have strong internal cues unlike stops and their absence would yield salient perceptual changes.

To test the hypotheses, an AX discrimination task was completed by Korean-speaking subjects. The stimuli recorded by a Russian speaker were pairs of a cluster form (C₁C₂aτe, netaC₁C₂) and one of four repaired forms: internal epenthesis (C₁ΩC₂aτe, netaC₁ΩC₂), external epenthesis (aC₁C₂aτe, netaC₁C₂a), C₁ deletion (C₂aτe, netaC₂), C₂ deletion (C₁aτe, netaC₁). The clusters were formed from combinations of a stop (k), a fricative (s), a nasal (m), and a liquid (l). Results show that the perceptual difference for the epenthesized form in the preferred site (after the stop, before the sonorant) is the smallest for all cluster forms. Deletion of the edge stop is perceptually more similar to the cluster than deletion of the other consonant, except in the case in which the edge stop deletion and the non-edge liquid deletion are perceived as being almost equally similar to the cluster. When the edge consonant is a sonorant, either deletion form shows a substantial perceptual difference from the cluster form. Therefore, the present experimental results support the current hypothesis.
Based on the P-map hypothesis (Steriade 2001/2008), the typology is accounted for by the fixed rankings of correspondence constraints below projected from the perceptual differences in the experimental results. The universal ranking interacts with other faithfulness constraints like CONTIGUITY and with markedness constraints like ONSET, and the crosslinguistic repair patterns are derived by the ranking of general Dep-V. Consequently, the typology of nonnative cluster repairs can be uniformly explained by the proposed fixed rankings reflecting the perceptual similarity scale.

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\begin{align*}
\text{Dep-V} & \rightarrow \text{Dep-V/#T, Dep-V/C\_T#}, \text{Dep-V/#R\_}, \text{Dep-V/R\_}, \\
\text{MAX-C/#C\_V}, & \text{MAX-C/V\_C#}, \text{MAX-R/#C}, \text{MAX-R/C\_} \\
\{\text{MAX-T/#C~MAX-L/#T\_V}\} & \rightarrow \text{(Finnish, Thai)} \\
\text{MAX-T/C\_} & \rightarrow \text{(Indonesian)} \\
\text{Dep-V/#T\_}, & \text{Dep-V/T\_}, \text{Dep-V/#R}, \text{Dep-V/_R}\# \\
\end{align*}
\]

(Korean)

(Word count: 748)

References
Yun, S. 2012. Perceptual similarity and epenthesis positioning in loan adaptation. Ms. MIT.